

Department of Natural Resources



FY 2015 Capital Outlay Five-Year Plan

Compiled by:
Finance & Operations Division
Budget & Federal Aid

Fiscal Year 2015 Capital Outlay Five-Year Plan

EXECUTIVE SUMMARY

Mission Statement

The Michigan Department of Natural Resources is committed to the conservation, protection, management, use and enjoyment of the State's natural resources for current and future generations.

Department Overview

The Department of Natural Resources was established in 1921 as the Department of Conservation for the purpose of managing and protecting the natural resources of the State of Michigan. Renamed the Department of Natural Resources (DNR) in 1968, the Department is responsible for stewardship of the State's natural resources and for the provision of public outdoor recreation opportunities. While operating as a stand-alone agency, the DNR works collaboratively with the Department of Environmental Quality (DEQ) and Michigan Department of Agriculture and Rural Development (MDARD) as a member of the Quality of Life group.

The DNR administers a variety of programs that are largely managed by the Department's core resource divisions – Fisheries, Forest Resources, Law Enforcement, Parks & Recreation, and Wildlife. Information on the programs administered by these divisions and the infrastructure that support the programs is provided in the Infrastructure Detail section. There are also several administrative divisions (e.g. Finance & Operations, Marketing & Outreach, etc.) that provide vital services in support of the Department's program operations.

Well-maintained and functional facilities are needed to support programs such as state parks, state harbors and boating access sites, state forest campgrounds, state game areas, wildlife viewing areas, and fish hatcheries, as well as field offices and Operations Service Centers (offices). The majority of the offices housing resource staff (seven out of the nine Operations Service Centers and fifteen out of the sixteen field offices) are state-owned facilities managed by the Department.

In addition to its operating infrastructure, the DNR manages extensive infrastructure related to its natural resource management, land management, and recreational responsibilities. This includes, but is not limited to, dams, bridges, trails, roads, harbors, boating access sites, shooting ranges, fish ladders, electrical systems, water systems, and sewer systems. Ongoing maintenance and repairs are needed to preserve the longevity of these assets and ensure the infrastructure remains operable, providing continued support for the programs and overall mission of the Department. Proactive repair and replacement of critical infrastructure that is rapidly aging and deteriorating

has become increasingly difficult due to the lack of available funding. With funding falling dramatically short of the amount needed to maintain, repair, and improve existing system infrastructure, a considerable backlog of necessary repairs and improvements has formed. As maintenance is deferred and needed repairs and improvements continue to go unaddressed due to the lack of available funding, the risk of infrastructure failure increases. As infrastructure failures occur, funding that is available must be directed toward emergency repairs, often at a much greater expense.

The DNR is continually searching for opportunities to secure additional financial support and leverage existing funding that is available for capital outlay needs. For instance, the Department's capital outlay requests frequently include Grants-In-Aid to maintain, build, and expand locally-owned recreational facilities related to boating. These projects further the mission of the Department without adding to the carrying costs of daily management or maintenance of infrastructure. The Department also submits grant applications to request funding through the Michigan Natural Resources Trust Fund and seeks to fully utilize available federal funding.

Where there is flexibility regarding the allocation of available funding, the DNR looks to established priorities for capital outlay planning. These priorities are established based on a predetermined strategy focusing on the following factors:

- Operational need
- Preventative maintenance
- Accessibility
- Recreational opportunities in or near urban areas
- Partnering/consolidation
- Energy-efficient facilities

This strategy for capital outlay planning interconnects with the overarching priorities established in the Department's scorecard:

- Protect natural and cultural resources
- Enable sustainable recreation use and enjoyment
- Enable strong natural resource-based regional economies
- Improve upon and forge new relationships and partnerships
- Promote effective business practices and good government

Specific performance metrics have been established with targets to define success and measure progress in achieving each of these priorities or desired outcomes. A copy of the Department's scorecard can be accessed via the following link:

http://www.michigan.gov/openmichigan/0,4648,7-266-60201_60939---,00.html.

Department Strategies for Prioritization

The DNR develops its capital outlay plans with a focus on the following items:

- **Operational Need:**

The critical nature of the Department's mission and responsibility to Michigan's citizens, taxpayers, and tourists mandates that the Department's facilities be sufficient to meet their service functions. Full utilization of the Department's varied resources is dependent upon sufficient and functional facilities.

- **Preventative Maintenance:**

The Department must preserve its existing capital investments so that it may continue to fulfill its mission and provide services to Michigan residents. Effective preventative maintenance practices minimize costs over the long term, prevent health and safety hazards, and allow for minimal interruptions of service.

- **Accessibility:**

The Department must strive to ensure that its facilities, programs, and projects are barrier-free and accessible to all users. The Department's goal is to provide accessible recreation opportunities to Michigan residents and visitors and increase opportunities for public access to the State's natural resources.

- **Recreational Opportunities in or Near Urban Areas:**

The Department promotes recreation user recruitment and retention through the development and maintenance of facilities in or near urban areas. Additionally, state trail connectivity initiatives help create walkable communities and facilitate restoration of degraded urban natural resources to provide quality outdoor recreation opportunities.

- **Partnering/Consolidation:**

Where possible, the Department shares facilities with other state agencies and universities to promote efficiencies and maximize the use of available funding. The Department works with local government agencies and other entities to develop and maintain recreational opportunities for Michigan's residents.

- **Energy-Efficient Facilities:**

The Department seeks to promote energy-efficient facilities and reduce facility energy consumption. Opportunities include installing energy-efficient lights, water heaters, heating and ventilation systems, and low-flow plumbing fixtures. Proper maintenance of roofs, installation of building insulation, and the reduction of exterior air infiltration lead to further energy efficiencies.

Department-Level Initiatives

In line with the DNR's strategic focus, the priorities outlined in the Capital Outlay Five-Year Plan for fiscal years 2015-2019 were identified on the basis of the following objectives:

1. Keep facilities safe and open to the public
 - Focus on the most critical needs (e.g. infrastructure that is most at-risk for failure) to ensure facilities are functional and able to remain open to the public
 - Perform preventative maintenance, as funding permits, to prevent health and safety hazards and preserve the Department's capital investments through proactive maintenance and repairs
2. Creatively leverage available funding, albeit limited
 - Take advantage of opportunities to secure federal funding for projects
 - Partner with local government agencies through the Grant-In-Aid program, maximizing project funding by supplementing available state funds with local match dollars
3. Increase opportunities for public access to the State's natural resources
 - Provide barrier-free access to facilities and recreational opportunities
 - Give special consideration to the location of new development as a means of creating new avenues for public access and expanding the existing user base
4. Exhibit good environmental stewardship, incorporating energy-efficient and "green" components into construction projects whenever feasible
5. Continue to seek sustainable funding sources for the Department's significant capital outlay needs

Programming Changes

A Department-wide initiative known as the "DNR Building Census Project" is being implemented to collect in-depth information on buildings that house DNR staff and equipment. The census is not intended to duplicate existing data. Rather, the census is expected to build upon existing data sets and include additional information that will allow the Department to better manage its buildings, know their condition, prepare funding requests for improvements, and identify where there is unused capacity for storage, staff, or other functions. It is anticipated that the building census effort will allow the Department to assess the condition and maintenance needs of its building assets in a more comprehensive manner and identify opportunities to use these assets more efficiently.

A new Facility Management System database was developed and released in early 2013. The Facility Management System database contains 2,420 tagged active structures. During the course of Fiscal Year (FY) 2013, the DNR completed an extensive review of facilities that contain office and storage space. This phase of the review process resulted in the identification of 868 tagged structures. The remaining 1,552 tagged structures are restrooms, dams, fire towers, land improvements, etc. that were exempt from this phase of the review process.

The review of the 868 structures included adding pictures, GIS coordinates, engineering and design plans, equipment manuals, and other related documents to the database. Information was added to the database related to square footage, structural and mechanical condition ratings, and network information. The database will serve as an excellent tool that can provide a wealth of information on DNR facilities and their condition. This tool contains a robust GIS mapping module to assist with current and future office and storage space logistic reviews. This tool will provide significant information to support future capital outlay requests. The Department has already gained significant benefits from this new database, and it will continue to be a vital source of information for future review and analysis.

The next phase of the inventory will be conducted within the next sixteen months and incorporate many of the 1,552 tagged structures that have yet to be inventoried. The DNR is reviewing the information collected from Phase I to assess future opportunities to:

- Improve customer service through enhanced access and responsiveness
- Improve longevity of vital DNR buildings through enhanced maintenance and upgrades
- Reduce long-term costs through diminishment of lease arrangements
- Enhance employee efficiency and effectiveness through strategic locations of facilities

INFRASTRUCTURE DETAIL

Department Operating Infrastructure

General Background

The Facilities, Operations, and Support Section (FOS) within the DNR Finance & Operations Division is committed to maintaining the Department's operating infrastructure, which includes nine Operations Service Centers (OSCs) and sixteen field offices. Please refer to the table on page A-1 in the appendix for the locations of the various OSCs and field offices.

The DNR's twenty-five administrative offices are distributed throughout the Upper and Lower Peninsulas. The offices provide administrative support to resource staff and customer service to telephone callers and walk-in customers. It is estimated that each year over 200,000 external customers are served by the administrative support staff working in these field locations.

The primary objective for FOS is to provide the very best customer service to the Department's external and internal customers (general population and DNR field resource staff respectively). This includes providing facilities that are accessible, operational, energy-efficient, and safe. It also includes locating key facilities in or near urban areas to provide service and information to all customers, and new experiences to non-traditional customers.

Inventory/Assessment

Each year the OSCs and field offices are inventoried and assessed for maintenance issues. Each of the facilities has been inventoried and assessed several times this fiscal year. It has been determined that all OSCs and field offices fall within an age range of twenty to sixty-nine years, with a mean age of forty-one years. With a few exceptions, the facilities are currently in need of renovation and repair. Three of the offices are leased. Many of the remaining offices need to be renovated to provide new carpeting, paint, furniture, roofing improvements, and energy-efficiency improvements (e.g. new windows, high efficiency heating and cooling systems, high efficiency lighting and plumbing systems, etc.).

All of the operating facility assessments address maintenance issues, health and safety issues, accessibility issues, and energy efficiency. Although the assessments completed by the administrative managers are not considered "professional assessments," the administrative managers are responsible for maintenance and upkeep of the facilities within their respective areas. Therefore, the managers are extremely familiar with the needs of their offices. In addition, each administrative manager either has experience in completing facility assessments and/or has been trained to complete them.

Recent Accomplishments

In light of tough economic times and reduced budgets, many of the capital outlay priority projects for the Department's operating infrastructure remain unfunded. However, in FY 2013, the Department was able to complete or commence a limited number of maintenance and improvement projects with support from an allocation of enterprise-wide special maintenance funding appropriated to the Department of Technology, Management and Budget (DTMB). The range of projects completed or commenced included a new parking lot at the Cadillac OSC, new windows for the Baraga OSC, new carpet and paint for the Escanaba Field Office, and parking lot improvements at the Plainwell OSC.

Priorities

A list of priority projects for the Department's OSCs and field offices has been developed for FY 2014 and beyond. Economic conditions and available funding will largely dictate the extent to which the Department is able to complete these projects.

Maintenance and improvement needs exist across all twenty-two of the state-owned administrative offices that the DNR manages. The type of needs identified include new carpeting; new furniture; exterior and interior painting; energy-efficient heating, ventilation, and air conditioning (HVAC) and lighting; new storage garages; office renovations and additions; roof replacements; and parking lot paving and maintenance.

Maintenance and improvements are critical to provide sufficient, functional facilities, minimize costs over the long term, prevent health and safety hazards, and to allow for minimal disruption of service. DNR administrative offices are open to the public, serving several hundred thousand customers each year. Recognizing that these interactions have lasting impacts on how the public views the DNR and its programs, it is critical that the Department ensure its facilities are accessible, operational, energy-efficient, and safe.

Programming Changes

The DNR continues to reassess the needs of its offices, as well as the location and number of offices around the State. The Department faces a variety of challenges, including maintenance issues and facilities that are not adequate to store equipment or accommodate staff. These challenges must be balanced against the Department's goal of realizing as much private rent savings as possible. It is an ongoing objective of the Department to reduce its dependency on private rent and transition to state-owned facilities managed by the Department where possible.

Land Management

General Background

The DNR manages approximately 4.6 million acres of land throughout the State. These lands are inventoried in the Land Ownership Tracking System (LOTS), which includes the Minerals Management System and other related subsystems. This system

maintains the ownership history of public lands managed by the Department and is the largest land transaction management system in the State. LOTS serves as the basis for more advanced systems, such as resource mapping, and is used to process real estate transactions from the initial stages through posting.

The Department is in the process of selling parcels that were identified as “surplus” in a land review completed several years ago. In an effort to make effective use of lands that are determined to be surplus, the Department is working to convey these parcels in a manner that 1) provides for continued protection of important natural and cultural resource or recreation values; 2) provides a means to purchase or exchange for more desirable replacement lands; or 3) supports local economic activities.

The Department’s priorities for acquisition include acquiring private land in-holdings to consolidate existing public land ownership, acquiring lands to protect key wetlands, acquiring wintering deer complexes, acquiring lands to protect rare species habitats, and acquiring lands to provide additional public access. Consolidation of lands and disposing of non-contiguous lands allows the Department to manage these resources in a more effective and efficient manner.

The Department purchases and maintains equipment in order to maintain lands and infrastructure. Replacement of old and unsafe equipment, such as bulldozers, loaders, tractors, and dump trucks, is a priority. The use of DNR staff and equipment is cost-effective for maintenance. For large projects that involve bridge replacements or repairs, contractors and oversight are needed.

Inventory/Assessment

All lands are recorded in the Department’s land database. Assessments of infrastructure condition are ongoing. These assessments are carried out by the appropriate managing divisions (Forest Resources, Parks & Recreation, Fisheries, or Wildlife).

Priorities

A June 2012 Real Estate Performance Audit issued by the Office of Auditor General (OAG) cited the DNR for failure to work collaboratively with the Department of Corrections (DOC) to demolish vacated correctional facilities on public lands managed by the DNR, thereby restoring the recreational value of the sites. The DOC closed facilities situated on DNR-managed lands without providing for adequate decommissioning, demolition, and site restoration.

Demolition and removal of abandoned prison infrastructure at two of the sites referenced in the recent real estate audit still needs to be completed.

- Camp Lehman, Crawford County – Closed October 30, 2009
- Camp White Lake, Oakland County – Closed September 11, 2009

Legislative approval has been received for the demolition of abandoned prison infrastructure at both sites. A source of funding was recently identified by the DOC, which will allow both projects to move forward.

The demolition and site restoration work will offer a variety of benefits, including removing public health and safety hazards, reducing liability, and returning land to productivity and public use. Restoration of these lands will provide the public with additional outdoor recreational opportunities and improved hunting and fishing experiences. These efforts will also restore forest productivity and other revenue-generating natural resources that contribute to the State's economy.

Programming Changes

As a result of recent legislation, a cap has been placed on the number of acres of public land that the DNR can manage. In accordance with PA 240 of 2012, the Department is currently prohibited from managing more than 4,626,000 acres. This restriction is in place until May 1, 2015, at which time a new cap will be instituted for DNR-managed lands north of the Mason-Arenac line. Beginning May 1, 2015, PA 240 of 2012 prohibits the Department from managing more than 3,910,000 acres north of the Mason-Arenac line. However, the statute includes intent language indicating this restriction could be lifted if the Department submits a strategic plan for land acquisition and disposition that is acceptable to the Legislature.

A strategic plan to guide the acquisition and disposition of public lands managed by the Department is required by PA 240 of 2012. In May 2013, the Department completed development of the DNR Managed Public Land Strategy. The strategy and appendices can be found on the DNR website and can be accessed via the following link:

http://www.michigan.gov/dnr/0,4570,7-153-31154_64433---,00.html.

More detailed information concerning the number of acres the Department manages is available on the DNR website and can be accessed via the following link:

www.michigan.gov/dnr/0,4570,7-153-31154-285534--,00.html

Fisheries Facilities, Infrastructure, and Equipment

General Background

The DNR's Fisheries Division is committed to the protection, management, and enhancement of Michigan's aquatic resources for the benefit of current and future generations. In FY 2013, the Fisheries Division released a new five-year strategic plan, which is intended to guide future management activities. A copy of the strategic plan is available on the DNR website and can be accessed via the following link:

http://www.michigan.gov/dnr/0,4570,7-153-10364_52259-297509--,00.html

Facilities, infrastructure, and equipment that contribute to the success of the mission and the objectives of the five-year strategic plan include the following:

Hatcheries

These facilities include six state fish hatcheries (Harrietta, Marquette, Oden, Platte River, Thompson and Wolf Lake), one cooperative Atlantic salmon hatchery (Lake Superior State University), one cooperative lake sturgeon hatchery (Black River Fish Hatchery), two portable lake sturgeon hatchery trailers, five permanent salmon egg take stations, and more than thirty extensive coolwater rearing ponds. These facilities currently have an estimated capital value of approximately \$80 million. The Department's hatcheries typically produce approximately 10 million trout and salmon and 30 million walleye, muskies, and sturgeon annually. At that level of output, approximately 600,000-700,000 pounds of fish are produced each year for Michigan's public fishing waters. Information concerning the DNR's six state fish hatcheries is provided below:

- ***Harrietta State Fish Hatchery, Harrietta, MI:*** The hatchery was first opened in 1901 and is the oldest continuously operating state hatchery. It is a major rearing facility for rainbow trout (mostly for inland waters) and brown trout (both inland and Great Lakes waters).
- ***Marquette State Fish Hatchery, Marquette, MI:*** The hatchery began operating in 1920 and was substantially renovated in 1994. It is the primary captive broodstock and rearing facility for brook and lake trout that are used in both inland and Great Lakes waters. The hatchery also rears splake (a brook trout/lake trout hybrid) for both Great Lakes and inland waters.
- ***Oden State Fish Hatchery, Oden, MI:*** Opened in 1921, the facility was completely rebuilt in 2002. This facility is the brown and rainbow trout captive broodstock station and is a major rearing facility for those two species.
- ***Platte River State Fish Hatchery, Honor, MI:*** Opened in 1928, the hatchery raises coho, chinook and Atlantic salmon, and incubates walleye. The facility underwent a partial renovation in 2003. Platte River State Fish Hatchery is one of two egg take stations for coho salmon in the Upper Great Lakes.
- ***Thompson State Fish Hatchery, Thompson, MI:*** The hatchery was opened in 1920 and was completely renovated in 1978. The facility produces a wide range of fish species for both inland and Great Lakes waters because of its unique combination of cold and warm groundwater supplies.
- ***Wolf Lake State Fish Hatchery, Mattawan, MI:*** Established in 1927, the hatchery was completely renovated in 1983. This facility produces a wide range

of fish species for both inland and Great Lakes waters. Coldwater species produced at Wolf Lake State Fish Hatchery for Great Lakes waters include steelhead trout and chinook salmon. Coolwater species produced at this facility include walleye, lake sturgeon (the only production facility to rear this species), northern pike, and muskellunge.

To complete the fish production mission, Fisheries Division maintains and operates seventeen specialized fish transportation trucks that move fish to stocking sites from fish hatcheries, a cooperative Aquatic Animal Health Unit with Michigan State University to diagnose and manage aquatic animal pathogens in both wild and hatchery populations, a cooperative fish marking program that annually marks between 3 million and 8 million fish with physical or chemical marks to allow for program evaluation and selective harvest, and a fish quality program to ensure the fish from the State's hatchery system are able to perform as desired by Fisheries managers. To ensure the fish production facilities are capable of producing the required fish, each hatchery has trained maintenance staff supported by system-wide fish transportation and electronics specialists.

Research Stations

Fisheries Division maintains six research stations and four Great Lakes vessels for the primary purpose of providing scientific information on which to base aquatic resource management decisions. Activities include monitoring and assessing Great Lakes fisheries, inland fisheries, and other aquatic resources. A wide range of specific fisheries issues are also investigated. There are four Great Lakes stations:

- Alpena (opened 1969; current location since 1996)
- Charlevoix (opened 1894; current location since 1968)
- Lake St. Clair (opened 1968)
- Marquette (opened 1952)

These research stations are used for investigating, monitoring, and assessing commercially-important fish species; recreational creel surveys; tagging programs; studies of introduced salmonids; and evaluation of near-shore fishes. The stations conduct research and stock assessment on the fish populations of each of the Great Lakes, including connecting waters such as the St. Clair/Detroit River System and the St. Mary's River. In addition, the stations report on invasive species.

The two remaining research stations are Hunt Creek Research Station and the Institute for Fisheries Research. Hunt Creek Research Station is located in Montmorency County and opened in 1939. The research area encompasses 3,000 acres and includes several miles of Hunt Creek main stem, seven tributary streams, and four lakes, all within a one mile radius of the office. This station has a long legacy of providing a foundation for coldwater fisheries management nationally; the station is also open for collaborative investigations with other agencies and universities.

The Institute for Fisheries Research (IFR) is a cooperative unit of the DNR and the University of Michigan. Established in 1930 and located in Ann Arbor, the staff at this station is focused on providing managers with landscape analytical tools to address specific management challenges (e.g. groundwater withdrawal, wind power development in the Great Lakes, introduction of invasive species, etc.). The IFR is also responsible for development of recreational angler survey tools and oversight of the statewide inland status and trends programs.

Vessels

The Great Lakes are ecologically significant on a worldwide scale, as they contain twenty percent of the world's fresh water. Michigan operates the largest state agency vessel fleet on the Great Lakes, and justifiably so, as Michigan is jurisdictionally responsible for fisheries management in forty-three percent of the waters of the Great Lakes. Fisheries Division's large vessel program is used for the purposes of investigating, monitoring, and evaluating the status of the aquatic habitat and fisheries resources of the Michigan waters of the Great Lakes and connecting waters. The Department manages four vessels, each measuring over forty feet in length (one for each of the Great Lakes):

- Research vessel (R/V) *Lake Char* (built 2008)
- Survey vessel (S/V) *Steelhead* (built 1967)
- R/V *Channel Cat* (built 1968)
- R/V *Chinook* (built 1947)

Fish Ladders and Fisheries Operational Facilities

Fisheries Division has ten major fish ladders (and a number of smaller fish ladders), as well as several warehouses, shops, garages, and storage facilities that are instrumental to the management of the fisheries in the State of Michigan.

Inventory

An inventory is completed annually, the last being completed in March 2013.

Assessment

The DNR is developing a Facility Management System database that will collect facility assessment and maintenance data. This database will allow the DNR to quickly identify facilities with structural and maintenance needs. An assessment of the State's fish hatcheries was completed in 1997 and is available. Research vessel maintenance schedules are also available.

Recent Accomplishments

No major capital improvements were completed in FY 2013 due to funding constraints.

Priorities

Top priorities for fiscal years 2015 through 2019 include the following:

- Replacement of the R/V *Chinook*, whose structural integrity is compromised and may soon not be seaworthy (DNR Strategies: Operational Need, Energy-Efficient Facilities, Preventative Maintenance, and Partnering/Consolidation)

Details

The R/V *Chinook* is sixty-six years old and is approaching retirement for many reasons, including hull corrosion, unsustainable maintenance costs, and the fact that it lacks contemporary safety features. If the vessel is not replaced, all surveys in the DNR's Great Lakes sampling program will need to be reprioritized as they relate to legal mandate, federal funding, and partnership commitments. A reduction in survey effort would be realized as the other vessels from Lakes Michigan and Superior are deployed to address high priority surveys in Lake Huron.

The R/V *Chinook* crew conducts critical surveys and inventories of fish populations to document the effects and spread of aquatic invasive species (AIS) and diseases, as well as to assess other factors that influence the health of fish habitat. Without this data, new AIS may establish in Lake Huron, and existing AIS could spread more rapidly. Replacement of the *Chinook* would allow the DNR to continue critical assessments of Lake Huron to contain and control existing AIS and to detect new AIS quickly so that they can be eliminated or at least be effectively controlled. Additionally, the R/V *Chinook* is the backbone of fisheries management efforts in the treaty-ceded waters of Lake Huron, where the State is obligated by treaty to provide assessment data to support fisheries management. In Saginaw Bay, data collected through the efforts of this research vessel helps to ensure the excellence and sustainability of one of the greatest walleye fisheries on earth.

- Ongoing facility maintenance to increase the efficiency, safety, and longevity of infrastructure and equipment (DNR Strategies: Preventative Maintenance, Operational Need, and Energy-Efficient Facilities)

Details

The infrastructure that Fisheries Division maintains has a current capital value exceeding \$125 million, including \$80 million in hatchery infrastructure and \$15 million in fishway infrastructure. To properly maintain this level of infrastructure and meet present fisheries requirements necessitates a minimum one to two percent reinvestment each year in maintenance. Current funding allocations for maintenance of facilities within Fisheries Division are well below that amount, and the division has been unable to keep up with the rate of necessary improvements or repairs. Additional funding is needed to begin to address the required upkeep for health and safety and maintain the investment in facilities and equipment.

- Large-scale maintenance and upgrades for all six state fish hatcheries (DNR Strategies: Preventative Maintenance, Operational Need, Recreational Opportunities in or Near Urban Areas, and Energy-Efficient Facilities)

Details

Michigan's fish production system is critical to managing the State's fisheries resource, which is valued at over \$2 billion in annual economic activity. It is estimated that the state fish hatchery system provides nearly forty percent of this value (approximately \$800 million annually). Therefore, it is critical that this 24/7 system, which uses facilities with an average age of twenty-two years (fifty percent greater than thirty years old), be reliable and cost-effective. Insufficient funds have been available to resolve outstanding large-scale maintenance issues at the Department's fish hatcheries, and investments are needed to ensure the system remains a viable fisheries management tool and economic engine. The project would address system-wide needs, with a focus on key elements and life support systems. Many of these systems are obsolete, and repair options are very limited. In addition, the current systems are not energy-efficient. An investment in the maintenance and upgrade of hatchery infrastructure is needed to extend the life of the facilities, ensure reliability, and reduce the probability of catastrophic failure. The economic implications of system failure at any one of the hatcheries would be in excess of \$100 million annually. It is also estimated that such an investment would allow the Department to avoid approximately \$75,000 per year in operating costs from current system inefficiencies.

- Upgrade Thompson and Wolf Lake State Fish Hatcheries to raise additional steelhead trout for Michigan waters (DNR Strategies: Preventative Maintenance, Operational Need, and Energy-Efficient Facilities)

Details

The current annual demand for yearling steelhead trout (adfluvial form of rainbow trout) from the DNR fish production system outstrips production capabilities by 500,000 fish. Additionally, the two DNR hatcheries that produce steelhead are among the oldest in production. Without immediate investment in needed maintenance at these facilities, it is anticipated that steelhead production will decline by an additional thirty-five to forty percent over the next eight to ten years. Upgrades are needed at Thompson and Wolf Lake State Fish Hatcheries to maintain current production and allow for the production of additional yearling steelhead to better meet demand.

- Construct coolwater production facilities at Wolf Lake and Thompson State Fish Hatcheries (DNR Strategy: Operational Need)

Details

The customer demand for coolwater fish (walleye, muskellunge, northern pike, and lake sturgeon) stocking greatly outstrips the Department's limited ability to produce these fish at Thompson and Wolf Lake State Fish Hatcheries. Both Wolf Lake and Thompson State Fish Hatcheries were designed for coldwater (salmonid) fish production. The facilities were both refitted for coolwater production long after the hatcheries were rebuilt in the late 1970s and early 1980s. As a result, the facilities are under-designed to meet current needs for coolwater fish, have significant maintenance issues as a result of this refitted situation, have fish health management issues, and cannot adjust for increased coolwater fish needs. The lack of isolation between coolwater and coldwater production recently resulted in the reduction of eighty percent of the walleye production because of an outbreak of Viral Hemorrhagic Septicemia.

The construction of separate coolwater production facilities could increase coolwater fish production by approximately 20 million walleye fry, 1.8 million spring fingerling walleye, 110,000 fall fingerling muskellunge, 200,000 spring fingerling northern pike, 675,000 northern pike fry, and 30,000 fall fingerling lake sturgeon annually and eliminate maintenance issues connected with combining coolwater and coldwater fish production in the same buildings. Such an investment would also help ensure uninterrupted coolwater production by isolating coolwater production from coldwater production to prevent disease transfer.

- Surface water ultra violet (UV) treatment at the Marquette State Fish Hatchery (DNR Strategy: Operational Need)

Details

The Marquette State Fish Hatchery currently relies on surface water for its water supply. Surface water borne diseases provide a threat to the fish raised in the hatchery and further limit the types of fish species that can be reared in the hatchery. Bacterial diseases that commonly occur when rearing fish on surface water are readily treatable with antibiotics, but they can make fish more susceptible to more serious and untreatable viral pathogens. As recently as 2012, a coldwater disease infection led to an outbreak of epizootic epitheliotropic disease, which is a very serious viral disease that can result in massive lake trout mortality. Additionally, staff are observing an increased number of new virulent pathogens and other invasive species that are placing fish production at this key facility at significant risk. The installation of UV treatment equipment for all of the surface inflow water would protect the State's investment in the production that is currently occurring at this hatchery and provide the flexibility to raise other fish species either for stock rehabilitation or fishery enhancement.

- Upgrade/renovation of the Saline Fisheries Research Station (DNR Strategy: Operational Need)

Details

Renovation of office and lab space at the Saline Fisheries Research Station would allow for the consolidation of staff at a single location and increase opportunities for collaboration with universities and industry.

Staff for the Institute for Fisheries Research (IFR) station is housed at the Museum's Annex on the University of Michigan (UM) campus. This collaborative program has a long, successful history that began more than eighty years ago. While Fisheries Division currently pays no rent for the office space through an agreement with UM, there are still costs associated with maintenance and upkeep of this very old building, as well as a large cost (greater than \$18,000 per year) for technical infrastructure. There are plans by UM to demolish the current building, and it is unclear where the IFR staff would be housed. Several efforts have been made in the past to develop a cooperative office with the U.S. Geological Survey Great Lakes Science Center, the National Oceanic and Atmospheric Administration (NOAA) Great Lakes Environmental Research Lab, the Great Lakes Fishery Commission, UM aquatics staff, and DNR Fisheries Division. These efforts matured to the point of developing blueprints; however, funding has been elusive for this synergistic effort.

In preparation for an eventual move of the IFR staff, an investment is needed to renovate an existing state-owned Fisheries Division facility. The fisheries station in Saline is the site of a laboratory, garage, experimental ponds, and a house that was vacated.

- Construct and/or renovate Fisheries field buildings in five locations (DNR Strategies: Operational Need, Preventative Maintenance, and Energy-Efficient Facilities)

Details

Fisheries Division needs to replace and/or renovate four field buildings that are over fifty years old and in deficient condition: Harrietta field building, Lake St. Clair Fisheries Research Station, Charlevoix Fisheries Research Station, Alpena Fisheries Research Station, and Plainwell Operations Service Center.

- Renovate Harrietta State Fish Hatchery for aeration improvements (DNR Strategy: Operational Need)

Details

The Harrietta State Fish Hatchery was designed in the 1970s with an open concrete aeration system that takes water from a series of wells, removes dissolved nitrogen, and puts in oxygen. This structure is open to the elements and is showing significant decay. If the structure were to fail, it would damage the main hatchery building, which is directly downhill from the structure, and cause the loss of all fish on-site. The structure, as currently designed, cannot be bypassed for repairs, and there are no backup systems for it. As a result, the

facility is at high risk of complete system failure if the aeration system fails. The existing aeration structure needs to be replaced with a state-of-the-art system similar to those at other hatcheries (the existing system could be kept as a backup). A new system would include degassing columns, buried piping, and a liquid oxygen injection system.

- Renovate four state fish hatcheries for effluent management improvements (DNR Strategy: Operational Need)

Details

Effluent management is a key issue at all large fish hatcheries in the nation as there can be significant discharges of nutrients that can lead to expensive legal issues, as evidenced by the Platte River State Fish Hatchery Court Case and Consent Agreement. Eventually, all hatcheries will be required to have advanced effluent treatment systems similar to those installed at Platte River and Oden State Fish Hatcheries during previous renovation work. The installation of solids capture technology is needed at Marquette, Thompson, Harrietta and Wolf Lake State Fish Hatcheries to eliminate potential future effluent issues at these facilities.

- Renovation of the Little Manistee River Weir (DNR Strategies: Operational Need, Preventative Maintenance, Partnering/Consolidation)

Details

Built in 1967, the facility includes a weir and egg taking operation on the Little Manistee River used to take eggs from Pacific salmon and steelhead for hatcheries, supporting a multi-billion dollar recreational fishery for those species. The weir also provides steelhead eggs to others in the Great Lakes basin. The weir encompasses 102 acres of land in Manistee County and is surrounded by U.S. Forest Service lands.

An investment is needed to enhance the structural and operational integrity of the weir and enhance the educational and interpretative amenities for the general public and stakeholders. The project could be pursued in collaboration with diverse partners including the Manistee County Alliance for Economic Success, the U.S. Forest Service, and Manistee County. These partners would leverage the enhanced amenities to foster regional economic vitality through a common goal of environmental stewardship and education.

Dams and Reservoirs

General Background

Governor Snyder stressed the importance of removing problem dams in his Special Message on Infrastructure (Delivered in October of 2011). There are nearly 2,600 dams

around the State that are cataloged in the National Inventory of Dams, and there are many more which are not. These dams were built for a range of purposes, including power generation, milling, recreation, and water storage. The American Society of Civil Engineers gave Michigan a “D” in its 2009 Dam Infrastructure report card, stating, “Over 90% of Michigan’s dams will reach or exceed their design life by 2020. Many dams are abandoned, no longer serve any useful purpose, and pose safety hazards to downstream residents.”

Approximately seventy-four percent of the State’s dams are privately owned, and many have significant issues with title ownership or have completely absent or unknown owners. Dams require continuous, often expensive maintenance that many owners are either unable or reluctant to provide. Dam repairs and removals often exceed six figures, and most owners cannot afford repairs or removal. Removing a problem dam rather than repairing one is economically advantageous because it provides a greater return on investment over time due to the elimination of perpetual maintenance costs. Representatives of several communities have approached the DNR seeking financial and technical assistance to remove dams rather than repair and maintain these structures. It is also likely that the State will be required to take ownership of some of these decaying assets through tax reversion, and these dams are often among those with the greatest public safety issues.

There is clearly an economic benefit associated with removing problem dams considering the ongoing maintenance and inspection costs that are eliminated. In addition, dam removal often has a positive environmental impact. Dams obstruct recreational uses of rivers, block movement of aquatic species, and disrupt natural nutrient flow patterns, causing numerous changes in stream configuration and aquatic species composition. Impounded water behind dams is less conducive to aquatic organisms because of poor water quality, abnormally high or low water temperatures, and accumulated sediment. Removal of problem dams improves the habitat of aquatic species in streams and rivers, which should result in better fishing and hunting opportunities for current and future generations. Finally, removal of dams that are in poor condition also eliminates the risk to public safety and downstream property posed by uncontrolled catastrophic dam failure, as evidenced by recent events in Colorado.

Inventory

An inventory of Department-managed dams has been completed and is available for review.

Assessment

The Department of Environmental Quality’s Dam Safety Unit completes assessments on the condition of the state-owned dams managed by the DNR throughout the State. This process is ongoing, and completed assessments are available for review.

Priorities

The DNR manages approximately 250 dams. Six are rated as high hazard, and sixteen others are considered to be a significant risk to public safety. Over eighty of the lower

hazard dams also require significant repairs. These dams exist to support fish rearing operations, wildlife habitat, and recreational camping, fishing, and hunting opportunities. Securing stable funding for the removal or maintenance of problem dams and to assist public and private entities in similar efforts continues to be a priority of the Department.

State Forest System

General Background

At 4 million acres, Michigan has one of the largest dedicated state forest systems in the nation. Through the Forest Resources Division (FRD), the DNR manages these forests for timber production, wildlife habitat, and recreation.

Over 53,000 acres are prescribed for timber harvest every year. Approximately 800,000 cords are harvested, generating revenue to the Department of approximately \$30 million. State timber, and access to the timber, is important to the State's economy. Michigan's state forests provide a consistent supply of wood to help support and maintain a diverse forest products industry. The forest products industry contributes approximately \$14 billion annually to Michigan's economy. State forests provide more than twenty percent of the raw material for these operations.

Timber harvest also produces wildlife habitat that is important to many game species. These game species indirectly benefit the State's economy by providing recreational opportunities. Hunters and other outdoor enthusiasts have a significant impact on local economies. Again, access is important.

The Department is also responsible for fire protection and suppression on public and private lands, totaling nearly 20 million acres.

Management of the state forest system includes responsibility for significant infrastructure, such as forest roads, bridges, staff offices, garages, and storage facilities. Due to limited funding, much of the infrastructure is in need of repair and/or replacement.

Inventory

A Department-wide initiative has been completed to collect in-depth information on buildings that house staff and equipment. The collection of this data allows the Department to make more informed decisions for staffing and facility maintenance.

Forest roads are mapped on an annual basis as the forest compartment inventory is completed. One-tenth of the land base is inventoried each year by foresters. It is estimated that there are over 30,000 miles of forest roads under FRD jurisdiction. The actual miles of forest road will be able to be determined in about four years once all compartments have been inventoried and mapped. Once the forest road inventory is completed, an accurate assessment of the roads and their infrastructure can be made.

An inventory of bridges and culverts is also incomplete, in part because the forest road inventory is incomplete. However the DNR is working with the Michigan Department of Transportation (MDOT) to complete an inventory of bridges. FRD is responsible for over 200 bridges, many of which are located on recreational trails managed by Parks & Recreation Division (PRD). Approximately twenty-one percent of these bridges have been inventoried, with the condition documented by consulting engineers. The remaining bridges are being inspected, inventoried, and assessed on an ongoing basis in cooperation with MDOT and their engineers. Three of the DNR bridges inventoried and assessed to date have had critical findings. Two of the bridges had to be closed, and load limits had to be instituted on the third bridge. The local road commission provided a portable bridge to replace the reduced-load bridge so that access could be restored.

Assessment

The DNR has many forestry-related buildings that have deteriorated to the point where roofs are leaking, causing internal damage to the structures. Many of the structures are in extremely poor condition and pose serious health and safety risks.

Responsibility for maintenance of roads and bridges also remains a key issue. The thousands of miles of forest roads are used not only to provide access for timber harvest, but also for fire suppression, water access, recreational uses, and local traffic. When issues are found with roads and bridges, particularly environmental issues such as sedimentation or run-off, those issues are reported and placed in a Resource Damage Report (RDR) database. There are currently over \$5 million in repairs in the RDR database. These repairs not only include road and bridge work, but trail projects as well.

On a positive note, funding has been allocated for the construction of a new facility to house the Forest Fire Experiment Station (FFES) in Roscommon. Construction of the new facility is expected to start in fall 2013, with occupancy expected in spring/summer 2014. The existing FFES building will need to be demolished once the new facility is completed and occupied. Testing and sampling for asbestos containing materials was done, and there are areas that will require abatement before demolition can occur. There is currently no funding available for the abatement or demolition.

Priorities

Major repairs, renovations, and the construction of field offices throughout the State are a priority, as well as ongoing repair of roads and bridges. The safety of the public and DNR staff is the top priority. Providing a safe working environment is important in order to complete the Department's mission. Having adequate structures in place protects employees and lengthens the lifespan of equipment.

Although state forest roads and bridges are in need of routine maintenance, the priority has been to address public safety issues and situations where major environmental damage is occurring due to limited funding. An example is a road washing out or a bridge becoming inadequate for the intended transportation needs. Providing right-

sized structures and adequately maintaining roads helps limit the amount of sediment entering waterways important for fisheries habitat. It also provides access for logging operations, especially where bridges are needed. Ongoing maintenance and repair of state forest roads and bridges is also important for meeting forest certification standards. Forest certification strengthens Michigan's forest products sector and is essential in order for primary wood producers in Michigan to have continued access to national and international markets.

Maintaining the transportation and infrastructure systems in the state forests provides improved and easier access for fire fighters, hunters, anglers, and campers. Conservation of the resources provides habitat for various species. Easier access and ample wildlife populations encourage increased participation in hunting, fishing, and camping activities. Improved access to revenue-generating natural resources also supports natural resource management and extraction activities (e.g. harvest of timber, extraction of oil and gas, etc.), which provide a critical boost to the State's economy.

The most significant issue impacting capital outlay for state-owned forests is the limited availability of funding. The Forest Development Fund, which is comprised of timber harvest revenues, is the primary source of funding for most state forest activities. Due to the restricted nature of the revenue source, as well as current operating expenditure needs, this fund is neither an adequate nor appropriate source for meeting all of the capital outlay needs in the state forests.

Forest Development Fund revenue tends to fluctuate due to the volatility of the timber market. While the fund is used for a variety of land management activities, the amount of revenue available is insufficient to adequately support all the programs and activities, much less the capital outlay needs that exist throughout the state forest system.

Programming Changes

Organizational changes were implemented in January 2012 that resulted in the transfer of management, oversight, and certain staff connected with the state forest campgrounds, trails, and pathways from FRD to PRD. FRD continues to work closely with PRD to assist with the care and maintenance of the state forest campground and trail system. FRD is committed to working in partnership with the Department's stakeholders to ensure that Michigan's world-class state forests are sustainably managed, provide critical habitat for wildlife, offer ample opportunity for recreation, and fuel a vital forest products economy for current and future generations.

Minerals Management

General Background

The DNR manages over 6 million acres of mineral estate through its Minerals Management program. Minerals Management supports the State's natural resource-based economy by overseeing the leasing of valuable oil, gas, and mineral resources, as well as the leasing of underground natural gas storage rights. Minerals Management

oversees the administration of approximately 1.6 million acres under 15,000 active leases (based on data from the close of FY 2012).

Revenue received from programs administered by Minerals Management is primarily distributed to various funds based on how the parcels were acquired. The State Park Endowment Fund is the largest beneficiary (approximately ninety percent each year). Oil, gas, and mineral royalty revenue is also distributed into the Game and Fish Trust Fund, and a small amount (less than one percent) is distributed to the General Fund for the leasing of natural gas storage rights.

Metallic Mining

There is currently no active metallic mining *production* on state-owned lands. There are two producing iron mines and one proposed copper mine on private lands.

A mine shaft entrance is being drilled for a new mine that involves state leases. It is anticipated that this project could bring in significant royalty revenue to the State once under production. Production is expected to begin in FY 2015. Copper and nickel are the primary products expected to be produced; however, there may be other products over the estimated life of the mine (approximately ten years). The royalties will vary depending on the type of product, amount produced, and the value of the product at the time of sale.

Additional companies hold state leases or are in the process of acquiring leases; however, all activity is in the exploratory or pre-mining stage.

Abandoned Mines

General Background

In addition to the leasing of oil, gas, mineral and natural gas storage rights, the DNR oversees a number of abandoned mine shafts on state-owned land. Abandoned mine shafts exist primarily in the western Upper Peninsula on both state-owned (largely tax-reverted) and private property. These abandoned mines pose significant health and safety risks, which include the potential for collapse, falls, drownings, accidental detonation of misfired explosives, or exposure to lethal gases.

Inventory/Assessment

An inventory of abandoned mines was conducted by Michigan Technological University through a contract issued by the Department in 1995. The inventory revealed that there are more than 2,000 mine shafts or other openings to the surface that exist in Michigan. Assessments of the condition of these mines are ongoing, with progress largely limited by funding constraints.

The DNR received appropriations in FY 1999, 2000, 2001, and 2002 to assist in the closure of state-owned mines. The appropriations funded the closure of sixteen mines in 2000 and fifteen in 2001. The average cost of closure for the first nine mines was

\$4,000, with the most expensive costing \$108,000. During 2002, the Department fenced and temporarily filled in two additional subsided mine shafts at a cost of approximately \$2,000 each.

In 2004, the DNR received a Federal Emergency Management Authority (FEMA) grant of \$225,000 (plus a \$6,000 administrative allowance) to be supplemented with \$75,000 of state money for the mitigation of the hazard posed by nine separate mine shafts. Closure of the nine shafts was completed in September of 2007, at a total cost of \$265,000.

Priorities

The Department has a need for funding to address emergency situations and to administer and systematically secure or close abandoned mine openings on state-owned lands. There is currently no available funding to cover the cost of a qualified mine consultant to perform these functions. The lack of regular maintenance and closure poses a health and safety risk to the public, as well as to the natural resources of the State.

Abandoned Exposed and Above-Ground Oilfield Pipelines

General Background

State oil and gas leases currently require oil and gas pipelines to be buried below plow depth. However, this was not always the case for pipelines crossing state lands. Furthermore, above-ground pipelines are still allowed on private lands. Abandoned pipelines on state lands create safety concerns for fire staff, timber contractors, and recreational public land users. These lines can be extremely difficult to see. In some cases, the lines are still active. Some pipelines have been inadvertently crushed or driven through and broken, potentially releasing unknown hydrocarbon gases and liquids into the ground. Furthermore, the pipelines interfere with wildfire control efforts, as equipment cannot be easily maneuvered over or around the lines to continue fire break trenching operations. The lines can also have a negative effect on natural resource-based industries by obstructing access for timber sales, reforestation activities, and recreation activities.

During a May 2012 fire response known as the Cabin Lake Fire, an above-ground pipeline was accidentally cut during suppression operations by DNR staff. This potentially dangerous situation occurred in an older oilfield where the above-ground pipelines were not properly marked; the conditions were smoky, and the fact that old, dead vegetation was covering the ground and pipeline hindered the operator's ability to see the pipeline.

Members of Minerals Management met with oil and gas operators and field staff from Forest Resources Division and Department of Environmental Quality, Office of Oil, Gas and Minerals to review the Cabin Lake Fire area issues. The intent was to discuss the development of a process to properly identify the active pipelines and determine, to the

extent possible, those lines that have been abandoned and can be removed from state lands.

Inventory/Assessment

An inventory of abandoned oilfield pipelines and a comprehensive assessment of the risks involved in deferring pipeline removal and maintenance was performed in a test area within the Cabin Lake Fire location.

Priorities

Currently there is no specific funding available to address the removal of abandoned above-ground pipelines. To promote the safety of staff and individuals connected with natural resource-based industries (e.g. timber contractors and recreational public land users) the Department has a need for funding to expand the inventory of abandoned above-ground pipelines statewide. In addition, funding is needed for removal of the abandoned above-ground pipelines crossing state lands (including site restoration).

State Game and Wildlife Areas

General Background

As part of the DNR, the Wildlife Division's mission is to enhance, restore, and conserve the State's wildlife resources, natural communities, and ecosystems for the benefit of Michigan's citizens, visitors, and future generations. Critical to that mission is the protection, restoration, and maintenance of wildlife habitat and user facilities on the State's 100+ game and wildlife areas consisting of more than 350,000 acres. Annual routine and non-routine maintenance is required to keep Department-managed areas operational and open for public recreational and educational use. Wildlife Division also has primary management responsibility for certain focus areas within the DNR's state forest system, including wildlife floodings, sensitive wetlands, and important deer yards. These areas collectively consist of more than 100,000 additional acres. Please refer to the table on pages A-2 through A-7 in the appendix for the names and county locations of the various State Game and Wildlife Areas.

Most of Michigan's wildlife areas are located in the southern half of the Lower Peninsula where over eighty percent of the State's population resides. Less than ten percent of the public hunting land available in the State is located in southern Michigan, yet a large percentage of hunting occurs on this publicly owned land. Based on current land use trends on privately owned land, these acreages will become increasingly important to both wildlife and outdoor enthusiasts.

Wildlife-related recreation is an integral part of Michigan's recreation and tourist industry. According to a Congressional Sportsmen's Foundation study, hunters spent approximately \$2.3 billion in Michigan on trip-related expenses and equipment in 2011. In addition, wildlife viewing activities contribute another \$1.2 billion annually to the State's economy. The social benefits of these recreational activities are immeasurable. Presently, state game areas provide habitat for numerous wildlife species that can be

hunted, such as waterfowl, wild turkeys, and deer. They also provide important habitat for non-hunted wildlife such as song birds, raptures, shore birds, and small mammals.

Inventory/Assessment

- Current Distribution of Public Hunting Land and Michigan Population by Region

Region	% of Public Hunting Land	% MI Population	Acres/Person
UP	64	3	20.09
NLP	30	8	3.77
SLP	6	89	0.07

UP = Upper Peninsula; NLP = Northern Lower Peninsula; SLP = Southern Lower Peninsula

- 110 Formally Dedicated Wildlife Division Land Types
 - 94 State Game Areas (SGAs) - Project areas that are owned, administered, and managed by the Wildlife Division
 - 12 State Wildlife Areas (SWAs) - Similar to SGAs, these areas are owned, administered, and managed by the Wildlife Division. The difference is the result of the dedication process. These areas were created legislatively or through some other dedication process where the decision makers decided to use this terminology as opposed to the more common SGA. Unlike SGAs, the naming of these areas occurred outside of the Wildlife Division; consequently, the Wildlife Division does not have sole authority to adjust these names for consistency.
 - 1 State Fish & Wildlife Area (SFWA) – This is a joint project with Fisheries Division to manage for wildlife and sport fish purposes. Augusta Creek SFWA is the only project of this type; Fisheries Division contributed Dingell-Johnson (DJ) funds for this project to protect water quality in Augusta Creek, a trout stream. Wildlife Division administers and manages this area by maintaining a wooded corridor along the stream to maintain cooler water temperatures and to reduce siltation in the stream. The rest of the area is managed as a SGA. This project area is owned, administered, and managed by the Wildlife Division.
 - 3 State Wildlife Research Areas (SWRA) - Similar to SGAs, these areas were originally designed for conducting applied wildlife research by the Wildlife Division. With less research conducted by the Wildlife Division, the areas are functionally managed as SGAs.
- All lands are recorded in the Department's land database. An assessment of the condition of support buildings and other infrastructure within State Game and Wildlife Areas is ongoing. Roads and bridges have not been scheduled for assessment due to a lack of available funding.

Priorities

The land acquisition and infrastructure maintenance priorities outlined in this section are based on Wildlife Division's strategic plan – The GPS (Guiding Principles and Strategies), as well as the Department's Public Land Management Plan. A copy of Wildlife Division's strategic plan is available on the DNR website and can be accessed via the following link:

<http://www.michigan.gov/dnr/0,4570,7-153-10370-232589--,00.html>

The statewide focus is on recreational opportunity and the renovations and repairs needed to maintain facilities and keep infrastructure in a safe and operable condition. The priorities address the higher level priorities and metrics of the GPS and the Department's scorecard, specifically:

GPS Goal 4 – Increase public participation, acceptance, and support of hunting and trapping and increase participation in non-consumptive wildlife-related recreation

GPS Objective 4.3 – Increase the retention rate of hunting and trapping license purchasers by twenty-five percent

GPS Strategy 4.3.2 – Increase small game hunting opportunities and promote small game hunting on public and private lands, especially in southern Michigan

GPS Objective 4.4 – Provide access to an additional 20,000 acres of land for public hunting and trapping recreation

DNR scorecard metric (DNR REC-2) – Increase the number of new hunters who purchase a hunting license to at least 75,000 annually

DNR scorecard metric (DNR REC-5): Increase the percentage of hunters who purchase a hunting license in two consecutive years to at least eight-five percent

Wildlife Division scorecard metric: Increase the retention rate of hunting and trapping license purchasers by twenty-five percent

GPS Goal 9 – Provide equipment and facilities to fulfill Wildlife Division program priorities

GPS Objective 9.1 – Provide all staff with appropriate facilities and business support tools

GPS Objective 9.2 – Provide all staff with appropriate equipment for maintaining facilities and habitat

GPS Objective 9.3 – Annually, ensure habitat and public access infrastructure is maintained for its wildlife management purpose

Wildlife Division scorecard metric: Increase the percentage of outstanding major maintenance needs addressed

Wildlife Division Acquisition Priorities

- **Michigan Pheasant Restoration Initiative** – This initiative is a partnership with Pheasants Forever, Michigan United Conservation Clubs, U.S. Fish & Wildlife Service, Michigan Department of Agriculture & Rural Development, local conservation districts, and other conservation organizations to facilitate a revitalization of Michigan pheasants. The focus is on working with coalitions of private landowners to restore pheasant habitat on fifteen to thirty percent of the landscape within Pheasant Recovery Areas. Targeted acquisitions for the purpose of protecting and maintaining pheasant habitat are a priority.
- **Michigan Waterfowl Legacy Initiative (MWL)** – This initiative is a ten-year cooperative partnership to restore, conserve, and celebrate Michigan's waterfowl, wetlands, and waterfowl hunting community. MWL is for waterfowlers, other hunters, and the general public. The DNR is focused on acquiring key wetlands for the benefit of wildlife species that thrive in those environments and to open additional wetlands to the public for hunting and outdoor recreational activities. In addition, it is important that the Department address aging pumps and related infrastructure that are inadequate and can no longer function at the levels needed to keep existing wetland areas in optimal condition. In some cases, the existing infrastructure is no longer used as designed, and replacement with simpler structures would improve efficiency with similar results. Without restoration or removal of failing infrastructure, these managed wetlands will decline in quality, resulting in fewer species using the habitat. This will lead to fewer days afield for hunters and wildlife viewers, negatively impacting license sales and tourism activity.
- **Increased hunting access in southern Michigan** – Acquisitions to expand public access are a priority, particularly in areas with low per capita public hunting land and cold spots without hunting access.

Wildlife Division Regional Land Acquisition Priorities

- **UP** – Winter deer habitat, sharp-tailed grouse habitat in Chippewa/East Mackinac Counties, Great Lakes shoreline (piping plovers and other species), rare communities and rare species habitat
- **NLP** – Elk range acquisition, consolidation of Wildlife Division administered land
- **SLP** – Michigan Pheasant Restoration Initiative, Michigan Waterfowl Legacy Initiative, consolidation within project boundaries—especially providing road access, providing access within fifteen miles of residents, and contiguous forests

Wildlife Division Infrastructure Maintenance and New Construction Priorities

- **Buildings** – Maintenance or improvement of facilities (e.g. headquarter buildings, storage structures, outbuildings, fencing, and animal holding facilities within game and wildlife areas)
- **Parking Lots** – Maintenance or improvement of parking lots for existing game and wildlife areas, as well as landscaping, refuse removal, and renovations to accommodate disabled users. Existing parking lots are typically located near established roads, accommodate four to thirty-five vehicles, and have a compacted gravel surface.
- **Roads and Trails** – Maintenance or improvement of existing game and wildlife area roads and trails. This includes associated landscaping and compaction of materials to accommodate disabled users.
- **Signs** – Routine and non-routine posting and updating of game and wildlife area boundary and information signs. This includes posting of newly purchased properties, conversion of old sign types, posting of informational signs for special habitat projects, and identification of facilities for disabled users. Wildlife Division adheres to the general guidelines for the graphic reproduction of the Federal Aid in Wildlife Restoration symbols.
- **Bridges** – Maintenance or improvement of bridges to keep existing bridges safe and fully functional
- **Wildlife Structures** – Maintenance or improvement of nest boxes, denning structures, nesting platforms, and other artificial structures that benefit a variety of wildlife species
- **Impoundments** – Maintenance or improvement of existing impoundments, including weirs, dikes, ditches, water supply channels, tubes, gates, and pumps, and dams. Maintenance activities include associated mowing, vegetation control, tree and brush control, replacement of gravel and fill material, riprap, and fencing. Associated structures include gauging stations, barriers, bridges/crossings, docks, boat rollers, and launch sites. Existing impoundments can be as large as 200 acres. However, most of the impoundments are between two and twenty acres in size.
- **Equipment** – Repair or replacement of heavy equipment used statewide. This includes bulldozers, skidders, choppers, hydromowers, hydromulchers, excavators, backhoes, draglines, trailers, dump trucks, stakerack trucks, pickups, portable pumps, farm tractors, farm equipment, and snowmobiles. Wildlife Division is required to maintain its equipment to ensure it is safe and in operable condition.

- **Refuse Removal** – Major and unexpected clearing of unusual materials. This typically involves illegal dumping of unknown materials and chemicals on state wildlife areas that may require hazardous waste removal.

State Parks System

General Background

The Michigan State Parks System is comprised of seventy state parks, twenty-three state recreation areas, three state scenic sites, three historic state parks, and five state park linear trails. In addition, the System contains 137 state forest campgrounds. These facilities (241 in total) are spread across various locations statewide, with approximately one-third located in urban areas. Through the Parks & Recreation Division (PRD), the DNR also manages the Ralph A. MacMullan Conference Center (RAM Center) and is responsible for over 12,000 miles of designated state trails. A list of the facilities that form the State Park System can be found in the appendix on page A-8 (List excludes state forest campgrounds and non-motorized pathways, which are also classified as state recreation areas). It is anticipated that the State Park System will continue to grow with the addition of the new Outdoor Adventure and Discovery Center at Milliken State Park & Harbor in 2014, as well as the possible addition of Belle Isle in Detroit as an urban state park. The infrastructure needs at Belle Isle are extensive. If a lease agreement is finalized, the DNR would look to secure additional funding to begin addressing priority maintenance and repair needs.

The Department is focused on maintaining and improving the state parks facility infrastructure, in conjunction with community and private partnerships, to support program operations and land stewardship needs. Priorities for current and upcoming capital improvement projects continue to focus on public health, safety, and welfare issues. Sustainable development is also being incorporated into current and future development projects and facility management efforts, along with “green” technology, energy efficiency, and barrier-free/accessible design considerations. These focus areas and initiatives have also been incorporated into the 2009-2019 Parks and Recreation Division Strategic Plan. A copy of the strategic plan is available on the Department’s website and can be accessed via the following link:

http://www.michigan.gov/documents/dnr/COMPLETE_DOCUMENT_Signed_279037_7.pdf

Every year, about 22 million state park visitors enjoy the abundant natural and cultural resources celebrated throughout the Michigan State Parks System. Unfortunately, much of the infrastructure that was developed in previous decades to support these visitors is in need of substantial repair or replacement. The Michigan State Parks System is in need of substantial reinvestment to continue to be responsive to customers’ needs and also reflect current recreational trends appropriate to a state system. Individual parks and/or recreation areas can host between a few thousand to over 30,000 visitors daily and are comparable to a city, with roads, water treatment facilities, water lines, playgrounds, electrical systems, etc.

The Michigan State Parks System has documented the need for over 700 priority renovation and upgrade projects, estimated at \$330 million. The amount of annual funding available to support basic infrastructure needs continues to be insufficient to adequately address the backlog of maintenance, repair, and improvement projects, even with revenues from mineral royalties and those derived from the continued increase in campground reservations. Compounding this dilemma, the Recreation Passport is not yet meeting projected participation levels to support the existing system. PRD has developed an infrastructure reinvestment strategy that is adjusted each year in an effort to align funding with the most critical needs. The following targeted allocations have been utilized for the capital outlay budget in 2014:

- Buildings – 25%
- Utilities – 22.5%
- Roads and Parking Areas – 12.5%
- Major Development – 10%
- Historical Structures – 8.75%
- Operational Structures – 7.5%
- State Park Trail Improvements – 6.25%
- Recreational Structures – 6.25%
- Habitat Restoration – 1.25%

Michigan's state parks and recreation system infrastructure has a total asset replacement value of more than \$1 billion. Replacing facilities by the end of their life cycle must be a programmed function, not an emergency reaction to infrastructure failure. In late 2008, one catastrophic infrastructure failure involving the entrance bridge leading into Warren Dunes State Park resulted in a \$1.2 million emergency repair project. This effectively depleted the entire available capital improvement budget for the year, leaving only enough money for minor maintenance and repair work.

A number of the larger infrastructure projects that are needed for the state parks and recreation areas are significant in cost but are critical to customer service and revenue generation. In many cases, the infrastructure projects are also needed to provide barrier-free and ADA compliant accessibility. In addition, there are water and sewer systems that require upgrade to ensure that health and environmental standards are maintained. Most of these below-ground utilities were constructed forty to fifty years ago and were not addressed during previous bond efforts. These infrastructure projects are necessary to support the needs of state parks and recreation area visitors, who contribute over half of the system's revenue each year.

A revenue bond program is one avenue that could be explored to accelerate needed capital improvements throughout the state parks and recreation areas. Projects could be funded through revenue bonds, which are enabled by statute up to \$100 million. However, in order for this approach to be feasible, existing revenue sources would need to be sufficient to cover the debt service payments, fund the continued growth in operating costs, and sustain an adequate capital outlay budget to support the system.

Inventory

Above-ground structures, roads, dams, internal trails, and linear trails were inventoried between 2004 and 2006. Attribute updates are required annually from field staff. Inventories for pedestrian bridges, utility systems, and ADA accessibility will be completed pending funding. In FY 2013, an engineering study was conducted through a professional services consultant to identify the highest priority below-ground water and sewer needs. Similar studies on electrical systems and roads will be completed during FY 2014. As a summary, inventoried infrastructure within the Michigan State Parks System includes:

- 1,345 buildings
- 468 miles of paved roads
- 43,092 paved parking spaces
- 12,000+ miles of trails
- 12,423 campsites with electrical service
- 1,077 unimproved campsites
- 49 wastewater lagoons
- 232 septic fields
- 68 sanitation stations
- 93 water systems
- 40 dams

Structures within the State Forest Recreation System, now managed by PRD, will need to be inventoried pending funding and staff resources. In addition to inventorying physical infrastructure, PRD has engaged thousands of park visitors through staff and volunteer campground hosts to gather public perspective on facility conditions and improvements and to identify future recreational opportunities.

Assessment

Through PRD's strategic plan, one of the primary goals established was to "Implement management practices to assess and sustain facilities." This goal addresses the need for a sustainable parks and recreation system in which the scale and size of the associated facilities reflects available capital outlay funding. Historically, much of the Michigan State Parks System was developed with General Fund tax support; during the 1970s, this support accounted for seventy percent of the System's funding. However, General Fund no longer supports the System at all.

Over the past seven years, substantial time and staff resources have been dedicated to inventorying, assessing, and prioritizing the holistic infrastructure needs within the Michigan State Parks System. Project needs and current infrastructure conditions are updated, tracked, and reported in order to identify priority projects to be considered for capital outlay funding. This is accomplished through multiple information technology business tools, as well as a range of field operations, planning, and stewardship staff.

Inventoried structures, roads, internal trails, and linear trails are recorded in PRD's comprehensive infrastructure inventory and asset management database called the "Infrastructure Management Application" or "IMA." Dam assessments are completed through an internal contract utilizing structural engineers from the Dam Safety Unit of the Michigan Department of Environmental Quality, as well as through biannual inspections by local PRD staff. Inventories for bridges that support vehicles are being

conducted through the Michigan Department of Transportation in FY 2014. Underground utility system updates are also pending funding availability.

The comprehensive infrastructure inventory and assessment currently includes over 14,000 infrastructure points, with 48,000 associated attribute records updated in real time by unit supervisors in the field responsible for managing these facilities. Location information on each structure, obtained through Global Positioning System (GPS) technology, is also included in the interactive Geographic Information System (GIS) web-based application. This data is used for project and finance planning, needs analysis, and infrastructure consolidation strategies.

During FY 2014, PRD will be undergoing a pilot project to evolve the asset management system to a new platform based upon IBM's "Maximo" software. This software is utilized by major entities around the world for asset management, including the National Park Service. One of the primary goals of the pilot is to expand the inventory and analysis system beyond infrastructure to include operational components (e.g. equipment, work management, maintenance schedules, contracts, etc.) in order to have a holistic system on a single platform.

Each fiscal year, PRD initiates a "call for projects" to collect and prioritize the needs of the state parks and recreation system, identify emerging health and safety concerns, and align projects for potential funding and programming design. This review also provides staff with the opportunity to update, assess, and qualify needs based upon conditional and general attributes. Collectively, these concurrent processes provide short and long-term planning strategies based upon varying levels of funding.

The following information is provided as an overview of the condition of the Michigan State Parks System and its most basic infrastructure needs. These lists are not all-inclusive, but rather focus on the primary support infrastructure that sustains the state parks and recreation system as it is today. Annual routine maintenance and repair needs are not reflected. Costs estimates are cited on the basis of 2014 costs.

Primary infrastructure needs include:

Buildings

- Replacement, repair, and demolition of existing structures (e.g. toilet/shower buildings, headquarters, field offices, cabins, garages, visitor centers, registration buildings, contact stations, beach/bath houses, etc.)
- Approximately 180 projects identified at an estimated cost of nearly \$85 million

Utilities

- Replacement, repair, and necessary modifications to meet health and safety requirements for utility systems (e.g. water, sanitary, electrical, storm water, gas, communications, etc.)
- More than 100 projects identified at an estimated cost of over \$40 million

Roads and Parking Areas

- Preventative maintenance, repair, and replacement projects for the approximately 470 miles of internal roads in accordance with conditional assessments
- More than 70 projects identified at an estimated cost of over \$60 million

State Park Trail Improvements

- Accessibility upgrades, surfacing improvements, repairs, interpretive signs, trailhead upgrades, and community linkages for the 880 miles of trails internal to state parks and recreation areas
- More than 70 projects identified at an estimated cost of over \$30 million

Recreational Structures

- Replacement, repair, and modification of boardwalks, observation decks, fishing piers, floating platforms, playgrounds, etc.
- More than 150 projects identified at an estimated cost of over \$30 million

Operational Structures

- Replacement, repair, maintenance, and modification of bridges, dams, and other operational features
- Nearly 50 projects identified at an estimated cost of over \$10 million

Major Development

- Complex and extensive development and modernization that typically requires a phased approach over several years (e.g. development of Milliken State Park, major campground improvements to address multiple failing utility and road systems, etc.)
- Over 35 projects identified at an estimated cost of nearly \$50 million

Historical Structures

- Replacement, repair, and accessibility improvements to designated historical structures and amenities
- More than 40 projects identified at an estimated cost of over \$15 million

Habitat Restoration

- Invasive species control, natural resource protection, and the restoration of critical or damaged habitats
- More than 10 projects identified at an estimated cost of nearly \$2 million

Priorities

A comprehensive capital outlay list for desired priority project funding is maintained and updated annually. Projects are chosen for funding based on the capital outlay and grant money available and the current highest need, as determined by PRD's executive leadership (Division Chief and Section Chiefs). To ensure that overall statewide priorities are effectively addressed, the following criteria were developed to evaluate top district projects:

- Resolves compliance issues (health/safety/welfare)
- Directly serves the public and enhances the visitor experience
- Responds to core infrastructure needs (utilities, buildings, roads, etc.)
- *Valid* preliminary or final engineering has been completed
- Project responds to high profile issues/needs
- Project has committed partners and associated funding
- Project enhances the ability to generate/sustain revenue
- Project improves employee efficiencies
- Project improves overall operational efficiency

Programming Changes

The primary funding sources which are currently available and used to support state park and recreation area operations, maintenance, and capital improvements are:

- Recreation Passport Fees Fund – Receives a percentage of Recreation Passport revenues.
- Park Improvement Fund – Receives all revenues derived from camping fees, concession fees, leases, gifts and donations, as well as a percentage of the revenue from the Recreation Passport. The fund was established by 1994 PA 451, Part 741, Sec. 74108 and is constitutionally protected (Article IX, Section 40).
- Park Endowment Fund – When the principal balance of the Michigan Natural Resources Trust Fund reached its cap in May 2011, this fund began receiving all mineral revenues exclusive of interest and earnings. The fund was established with the passage of Proposal P in November 1994, is designated in statute by PA 451, Part 741, Sec. 74119, and is constitutionally protected (Article IX, Section 35a).

Moving forward, PRD will need to focus on the sustainable contraction of park infrastructure in order to have a system that is viable and self-sufficient based upon the projected revenues and the anticipated levels of available funding for capital improvements. Based upon current and projected funding, the Department cannot redevelop state park and recreation area infrastructure to the same level and standard at all locations. A tiered approach to strategic capital improvements is one possible method for system-wide reinvestment. Facilities that have the demand and capacity could expand certain aspects in order to increase revenue streams (camping, rental structures, day-use, etc.), while other locations could reduce infrastructure to decrease long-term maintenance and better align with visitation and staffing levels.

An example of this tiered approach can be applied to categorical re-investments as follows:

- Toilet shower buildings
 - Tier 1 = \$1,100,000 – steel roofs, tile, poured resinous floors, stone & timber exterior

- Tier 2 = \$800,000 – asphalt roofs, concrete block & floors, fibrous cement board exterior
 - Tier 3 = \$600,000 – prefabricated, all concrete or stick built structures
- Utility systems
 - Tier 1 = 25% of sites upgraded for fifty amp service and full hook-ups
 - Tier 2 = 15% of sites upgraded for fifty amp service and full hook-ups
 - Tier 3 = 0% of sites upgraded for fifty amp service and full hook-ups
- Playgrounds
 - Tier 1 = \$100,000 – ramped platform-based structures with unique themes
 - Tier 2 = \$70,000 – platform structures
 - Tier 3 = \$30,000 – stand-alone equipment

In the end, a multi-pronged investment strategy is vital, regardless of the amount of funding that is ultimately available. This investment strategy is important in order to have a broad impact toward the long-term sustainability of the state parks and recreation system. In essence, this new era cannot be a “build it and they will hopefully come” philosophy. The strategy will be to purposefully align funding with the renovation, replacement, and reduction of infrastructure to match current recreational needs and emerging trends.

Mackinac State Historic Parks

General Background

The Mackinac Island State Park Commission has statutory authority for the management and development of the Mackinac State Historic Parks (MSHP). This includes Mackinac Island State Park, which encompasses eighty-two percent of Mackinac Island (roughly 1,700 acres) and is Michigan’s first state park, established in 1895. Fort Mackinac, an original eighteenth and nineteenth century military outpost, and several other historic buildings are located within the island park. On the mainland, MSHP operates Michilimackinac State Park, which includes Old Mackinac Point Lighthouse and Colonial Michilimackinac, a reconstructed eighteenth century military and fur trade center. Mill Creek State Park is home to Historic Mill Creek Discovery Park, a 640-acre park featuring northern Michigan’s first water-powered sawmill. In addition, the park features three miles of nature trails with interpretive signs and high ropes course activities integrated with a natural history interpretation program. Please refer to pages A-9 through A-11 in the appendix for a detailed outline of the programs and responsibilities of the various properties within the MSHP.

Inventory/Assessment

Because of the scope and diversity of MSHP properties, no single inventory or assessment has been conducted to evaluate the division’s infrastructure. Instead, inventories and assessments have been conducted in conjunction with other strategic planning processes. They are:

- **Detailed Architectural Survey and Risk Assessment (DACS):** This report was completed in 1997 and was funded by an Institute for Museum and Library Services grant. The report includes a prioritized list of MSHP historic building preservation projects that is annually reviewed and updated by the MSHP Historic Preservation Committee.
- **The Territory Ahead, Mackinac State Historic Parks Strategic Plan, 2012-2017:** Infrastructure needs are identified, prioritized, and addressed in this five-year strategic plan. The strategic plan is implemented through annual agency work plans.
- **Mackinac Island Airport Improvement Plan, 2013-2022:** Infrastructure projects at the Mackinac Island Airport (which is owned and managed by MSHP) are guided by this ten-year plan. The plan was developed in conjunction with MDOT-Aeronautics and contract engineers and is annually reviewed and updated.

Projects are prioritized by staff based on the institutional mission and are approved by the Mackinac Island State Park Commission. Priorities include:

- Public health, safety, and welfare/improving visitor service
- Preservation of irreplaceable historic structures and resources
- Expanding and improving the public presentation of MSHP's historical and recreational resources

Copies of the **DACS** report, **The Territory Ahead, Mackinac State Historic Parks Strategic Plan, 2012-2017**, and **Mackinac Island Airport Improvement Plan, 2013-2022** are available for review.

Recent Accomplishments

In FY 2013, MSHP successfully accomplished a number of program and infrastructure improvement projects. These accomplishments included:

- Completing reconstruction and interpretation of the South Southwest Rowhouse at Colonial Michilimackinac
- Completing restoration of the Fort Mackinac stone walls
- Painting several historic structures in Mackinac Island State Park (Biddle House, Benjamin Blacksmith Shop, and Fort Mackinac walls)
- Completing the Spring Trail stairway
- Initiating repairs on the Mill Creek Visitor Center and mill
- Initiating obstruction removal (tree clearing) at the west end of the Mackinac Island Airport
- Initiating resurfacing and improvement projects for Allouez and Louisignon trails and Crooked Tree Road within Mackinac Island State Park
- Initiating roof repairs for the Colonial Michilimackinac Commandant's House, Mackinaw City Administration building, and Mill Creek mill

Priorities

A list of priority projects has been developed for FY 2014 and beyond. Economic conditions and available funding will largely dictate the extent to which MSHP is able to complete these projects.

FY 2015

- Critical repairs to the Colonial Michilimackinac Visitor Center
 - Repave crumbling parking lot
 - Improve signs

FY 2016

- Replace wood sidewalks and improve drainage at Fort Mackinac

FY 2017

- Construct new restroom at Arch Rock, Mackinac Island State Park

FY 2018

- Phase I – Repair/repoint brick façade on Old Mackinac Point Lighthouse

FY2019

- Phase II – Repair/repoint brick façade on Old Mackinac Point Lighthouse

Harbors, Docks, and Boating Access Sites

General Background

The Michigan State Waterways Fund supports boating programs, including boating access sites, harbors, harbors-of-refuge, locks, and grants for both state and local facilities, under the advice of the Michigan State Waterways Commission. The Harbor-of-Refuge system provides safe harbors to boats cruising the Michigan shoreline, with harbors spaced so that boaters are no more than thirty miles from a safe harbor.

Current trends in the boating industry have shown that boaters are taking fewer trips, but the trips they are taking are longer. There are many larger vessels that have been left in storage or in their slips without leaving the marina, to be used as floating cottages. Gasoline consumption continues to decline. The reduction in gallons lowers the gas tax revenue collected, impacting the Waterways funding available for capital outlay projects.

The State Waterways Program provides transient and seasonal boat slips at state-administered harbor facilities throughout the Michigan Great Lakes, in addition to recreational boating access to the Great Lakes and inland lakes throughout the State. The DNR currently administers nineteen state harbors and over 1,100 state boating

access sites. The DNR also operates two locks on the Inland Waterway, a chain of rivers and lakes nearly linking Lake Huron with Lake Michigan through the northern part of the Lower Peninsula.

The Grant-In-Aid (GIA) Waterways Program provides grants to local units of government for Great Lakes harbor facilities and boating access site facilities, including sites providing public boating access to inland lakes. There are sixty-three GIA harbors, along with 300 GIA boat launch facilities that are supported technically and financially by the DNR with Waterways funding. Additionally, there is one federally administered harbor and one public-private administered harbor within the system. The presence of local harbors and boating access sites enhances the quality of life of Michigan citizens and contributes to local economic growth. In order to be responsive to local community project needs, the DNR evaluates grant requests on an annual basis and therefore cannot project community requests for grants in the form of a five-year plan.

Inventory

Records for 1,369 boating access sites are contained within the most recent inventory, of which 1,186 are state facilities administered by the DNR (most of these sites include boating access site facilities, and some are not yet developed). The remaining sites are managed by local units of government in partnership with the GIA Waterways Program. In addition, there are eighty-four harbors-of-refuge sponsored by the Michigan State Waterways Commission. The DNR manages nineteen of these harbors. Please refer to pages A-12 through A-45 in the appendix for a list of the various state and GIA harbors and developed state boating access sites.

The last location inventory was completed in 2008. State waterways inventory information was merged with the Michigan State Parks System inventory in the Infrastructure Management Application (IMA) in 2009 for holistic and consistent management of these state assets.

Assessment

Infrastructure continues to age well past life expectancies and deterioration of facilities is starting to show in spite of efforts to extend their lifespan. Most harbor facilities (ninety-eight percent) were developed over forty years ago. Approximately eighty-six percent of all harbor and boating access site facilities are over thirty years old, with a normal life expectancy ranging from twenty to thirty years. A rapid succession of requests can be anticipated in the next few years, many in emergency status, for infrastructure replacement and repair. If water levels recede to new lows, many harbor facilities will not survive without significant investment in order to keep them functional. Currently, there are over 100 active capital outlay projects in various stages of development. This is in addition to the numerous small, routine maintenance and repair projects performed by field staff, averaging over 200 projects annually.

Project infrastructure varies widely between boating access sites and harbors. While access sites have little infrastructure (e.g. ramps, parking lots, and vault toilets), harbors are complex, infrastructure-intense facilities. Harbors can contain sheet pile breakwalls,

rubblemound wave protection, shower and restroom facilities, fuel stations, floating or fixed piers, pilings, shore riprap protection, firefighting facilities, ice protection equipment, and other special equipment required for public safety, in addition to ramps and parking lots. Harbor infrastructure is very expensive, with costs typically ranging from approximately \$4 million to \$8 million for a comprehensive upgrade, depending on the facility. Boating access site upgrades typically range from \$10,000 to \$250,000 depending on the scale of the improvements and whether the project is completed in-house with field staff or contracted out to private companies.

Each year, all state boating access sites and harbor facilities are inspected, and conditions are recorded. Maintenance, upgrades, and replacements are scheduled annually. Not all improvements can be accomplished due to limited funds, creating a backlog of projects.

GIA facilities are inspected prior to new grants being awarded, at the end of a grant agreement's obligation, and when other circumstances such as safety issues warrant it. Communities are invited to participate with DNR inspectors to receive first-hand knowledge of inspection findings in order to assist in the correction of deficiencies.

In December 2012, a survey of local harbor conditions was conducted in response to record-breaking low water levels that threatened to close recreational boating facilities. The survey identified forty-nine recreational harbor and boat launch facilities (state and GIA) that were in need of emergency dredging in order to allow the public to continue to access the Great Lakes. In order to provide the necessary funds, the Legislature approved a special emergency dredging appropriation to allow dredging to occur at public recreational boating facilities across the State. Dredging needs have been identified for additional recreational boating facilities since the time of the initial survey. In the event that there are sufficient funds remaining, the Department would look to address the dredging needs at some of these other facilities as well.

As a result of the emergency dredging need, the Department was forced to put several awarded projects on hold to realign funding for the Emergency Dredging Plan. Now that lake levels have risen to more typical levels, the threat of closing recreational boating facilities has diminished. Those projects that were placed on hold to fund emergency dredging will now need to be funded. For some of the larger harbor renovation projects, this will need to be accomplished through a phased approach due to limited funding.

Recent Accomplishments/Ongoing Initiatives

State Projects

Potential state boating projects are submitted by PRD district staff annually and are prioritized for funding based on assessment criteria. During the past fiscal year, several major accomplishments (project studies or construction) were realized:

- De Tour State Harbor/Chippewa County – Redevelopment of entire facility
- Port Austin State Harbor/Huron County – Redevelopment of east pier and restroom building

- East Tawas State Harbor/Iosco County – Facility marketing and infrastructure analysis study
- Bolles Harbor Boating Access Site/Monroe County – Parking lot redevelopment
- Orchard Lake Boating Access Site/Oakland County – Parking lot redevelopment

Grant-In-Aid (GIA) Projects

- Forest Home Twp. Park Boating Access Site/Antrim County– New development
- Mucky Bottom Boating Access Site/Houghton County – New development
- North Hubbard Lake Boating Access Site/Alcona County – Redevelopment
- Gladstone Marina/Delta County – Dock and utility replacement

Emergency Dredging Plan (State and GIA Projects)

The dredging of recreational boating facilities continues to be a priority to provide public access, safety for boats cruising the Great Lakes, and economic stability for local communities. The following criteria were used to set priorities for the emergency dredging program:

- Ensure public safety through a Great Lakes Harbor of Refuge Safety Network
- Preserve access to the Great Lakes
- Improve recreational boating opportunities statewide (including inland lakes)
- Provide benefit to the greatest number of boaters
- Provide economic stability to local communities

Dredging has either started or been completed for over half of the projects identified for funding through the Emergency Dredging Plan. By the end of the calendar year it is anticipated that the remaining projects will also be underway. The following projects are expected to be completed from the list of emergency dredging needs identified in the initial survey:

State Projects

- Cedar River State Harbor/Menominee County
- Lac La Belle State Harbor/Keweenaw County
- Lexington State Harbor/Sanilac County
- Little Lake State Harbor/Luce County
- Port Austin State Harbor/Huron County

Grant-In-Aid (GIA) Projects

- Alpena Small Boat Harbor/Alpena County
- Arcadia Twp. - Veterans Memorial Marina/Manistee County
- Bay City - Liberty Harbor Marina/ Bay County
- Big Bay Harbor of Refuge/Marquette County
- Boyne City - Grant Moore Marina/Charlevoix County

- Burt Twp. - Grand Marais Marina/Alger County
- Caseville Municipal Harbor/Huron County
- Clark Twp. - Cedarville Harbor/Mackinac County
- Clark Twp. - Hessel Marina/Mackinac County
- Cheboygan County Marina/Cheboygan County
- Cheboygan City Municipal Marina/Cheboygan County
- East Jordan City Marina/Charlevoix County
- Elk Rapids-Edward C Grace Memorial Harbor/Antrim County
- Escanaba Municipal Marina/Delta County
- Frankfort Municipal Marina/Benzie County
- Garfield Twp. - Naubinway Marina/Mackinac County
- Grand Haven - Harbor Island BAS/Ottawa County
- Grand Traverse Bay Marina/Houghton County
- Harbor Beach Municipal Marina/Huron County
- Harbor Springs Municipal Marina/Emmett County
- Harrisville Harbor of Refuge/Alcona County
- Lake Erie Metropark Marina/Monroe County
- Lake St Clair - Metrobeach Metropark Marina/Macomb County
- Leland Township Harbor/Leelanau County
- Ludington Municipal Marina/Mason County
- Mackinaw City Municipal Marina/Cheboygan County
- Manistee Municipal Marina/Manistee County
- Manistique Municipal Marina/Schoolcraft County
- Menominee Marina/Menominee County
- Munising Bayshore Marina/Alger County
- Muskegon - Hartshorn Municipal Marina/Muskegon County
- New Buffalo Municipal Marina/Berrien County
- Northport - G Martsen Dame Marina/Leelanau County
- Pentwater Municipal Marina/Oceana County
- Petoskey City Marina/Emmett County
- Port Huron - Fort Street Marina/St. Clair County
- Port Huron - River Street Marina/St. Clair County
- Port Sanilac Municipal Harbor of Refuge/Sanilac County
- Rogers City Marina/Presque Isle County
- South Haven Municipal Marina/Van Buren County
- St. James Twp. - Beaver Island Marina/Charlevoix County
- St. Joseph - West Basin Marina/St. Joseph River/Berrien County
- Whitehall - White Lake Municipal Marina/Muskegon County

Priorities

The current strategy for project funding is to ensure that all facilities are funded at least minimally to keep them safe and open to the public. Preventative maintenance and proactive replacement schedules have not been options since the number of facilities needing attention exceeds the funding capabilities. This backlog applies to both state and GIA-operated waterways facilities. In order to provide basic funding for the needs of the statewide system, it would require that approximately \$17 million to \$20 million (five percent of the estimated infrastructure value) be spent annually on facility capital improvement upgrades. Within the next five years, an increase in needs for both state projects and GIA projects is anticipated.

Priority projects are selected in light of the Department's strategies of Operational Need, Preventative Maintenance, Accessibility, Recreational Opportunities in or Near Urban Areas, Partnering/Consolidation, and Energy-Efficient Facilities. The inclusion of several GIA projects is consistent with the Department's ongoing commitment to work in partnership with local government agencies and other entities to develop and maintain public recreational opportunities.

State Projects

A list of state waterways infrastructure improvement priority projects is updated and maintained on an ongoing basis. The projects and priorities reflected are continually updated as new information comes to light. As an example, lump sum funding for state boating infrastructure maintenance, repairs, and improvements continues to be a priority. Meanwhile, the renovation of East Tawas State Harbor is an example of a large-scale project that is currently a priority. Phase I of the project had to be delayed as a result of the Emergency Dredging Plan.

Grant-in-Aid (GIA) Projects

As a strategy to receive state grant assistance, communities applying for Waterways funding through the GIA program have begun phasing their projects in order to submit requests for smaller dollar amounts. Though the dollar amounts awarded are smaller, more communities have worked incrementally toward large-scale harbor improvements using this phased approach. Examples of projects that are priorities for GIA funding include the following:

- Lump sum funding for local boating facility maintenance, repairs, and improvements
- Garfield Township Marina (Naubinway)
- Cedarville Marina (Les Cheneaux Islands area)
- Manistique Marina
- Munising Bayshore Marina
- Presque Isle Marina (Marquette)

Programming Changes

The need for capital improvements is great considering the size of the statewide harbor and boating access site system and the fact that each upgrade can equate to millions of dollars in expenditures. Sufficient funding is not available to keep up with the needed

repairs. Therefore it is important that the State's harbor and boating access site system be evaluated based on a variety of factors (e.g. geographic location, feasibility, economics, water dynamics, occupancy, etc.) to assess the overall public value.

The combination of low water levels in the Great Lakes and the introduction of invasive species, especially vegetative, have created significant challenges for boating access sites and recreation facilities that seek to provide water access to the boating public. This issue directly impacts operations and maintenance and could also impact statewide planning efforts as sites must be reassessed for viability as a public boating access location.

Historical Program Infrastructure and Facilities

General Background

The DNR operates the Michigan Historical Center (MHC), which includes the Archives of Michigan and the Michigan Historical Museum System. Both share a storage facility in Lansing with Department of Technology, Management, and Budget (DTMB) Records Management Services. The museum system includes the flagship Michigan Historical Museum and ten historic sites and museums, eight of which are in state parks. The MHC is responsible for maintaining the Mann House in Concord and the Iron Industry Museum in Negaunee. DNR or DTMB are responsible for general maintenance of the other facilities. The MHC is responsible for all exhibits and care of all historic materials at each of the facilities. More than 350,000 people visit these sites each year.



Inventory/Assessment

Assessments of the buildings are completed on an ongoing basis. The most recent inventory of collections protection issues was completed in 2000 as part of accreditation by the American Association of Museums. The major problem identified at that time, the lack of an adequate storage facility for museum collections, has been rectified. The MHC has completed a 2010 overview of collections protection issues at the sites and will complete a more detailed inventory and assessment in the future.

The MHC has a long list of deferred maintenance problems that have been identified throughout the museum system. Some major projects are supported by Historic Structure Reports created by architects in the late 1990s. The MHC is in the process of refining and prioritizing that list.

Under care of collections, the Lansing collection storage facility needs modifications to ensure safe handling of artifacts and protection from dust and pests. In addition, all

ultraviolet (UV) protection for windows and lights has aged beyond its guaranteed ability to prevent deterioration caused by light. The field site museums have approximately 300 windows in historic buildings that allow light to shine on artifacts in exhibits. The UV filtering plexiglass that protects the artifacts by being mounted inside the windows also increases security, as it is harder to break than the historic glass, and it also improves energy efficiency.

A longer term need is to complete the work begun by the move to the new collection storage facility. Due to budget constraints, the facility was not completed with museum-quality storage fixtures for textiles and other important parts of the collection. Completing this work would promote better stewardship of the collections and provide needed storage space.

Recent Accomplishments

The project to stabilize the Hewitt House at Walker Tavern and bring the building up to code is complete, supported by a Transportation Enhancement Grant from the Michigan Department of Transportation (MDOT) and private donations. The roof on the building was replaced this year, and staff are completing replacement of the Tavern's leaking doors.

The Department has completed several maintenance projects out of available operating funding, albeit limited. The Mann House has been painted, and preventative measures have been taken to keep out bats. With a grant from the Michigan Lighthouse Fund and support from the Recreation Passport program, a historic structures report will be completed to provide direction on how to appropriately restore the range light at Copper Harbor. Phase I archaeological surveying of new land at the site has been completed with support from the Keweenaw National Park grant program.

Parks & Recreation Division (PRD) is replacing the roof of the hotel at Fayette this fall, and a study for the repair of the furnaces has been completed. The Civilian Conservation Corps (CCC) Museum at North Higgins State Park was also re-sided last fall by PRD and MHC staff.

Priorities

The following priority deferred maintenance needs exist in addition to the collections stewardship needs already identified:

Fayette Historic Townsite (state park site)

- Hotel - Plaster damage due to roof leaks
- Furnace stacks - Crumbling brick corners allowing moisture to enter
- Machine shop - Inadequate floor board support causing possible visitor safety issue
- Building 9 - Porch that has deteriorated due to water drainage; door sill is also rotting and loose, causing the area to be closed to visitor traffic
- Town Hall - Roof leak around stove pipe, with the potential to cause interior damage
- Doctor's office - Water leak on the first floor around porch; spalling or missing brick

Iron Industry Museum (MHC)

- Ice dam problems in 2005 addition (engineering planned for this fall)
- Moss covering overhang roofs on older part of the building
- Timber steps rotting outside of building
- Removal of hazardous asphalt path

North Higgins Lake State Park CCC Museum and Forest Nursery (MHC)

- Cone barn - Leak around the chimney; rotted floor and woodwork in places; back door needs replaced
- Ice house - Door needed; ceiling repair so birds cannot nest inside
- Museum - Window repairs; upgrade outdoor steps and ramp; roof

Hartwick Pines (state park site)

- Stain two buildings
- Re-chink logs and assess for need to replace or stabilize
- Window repairs
- Foundation repairs
- Roof repairs
- Repair and reopen Memorial Building

Walker Tavern (state park site)

- Hewitt House storm windows
- Tavern window repairs

Current funding is insufficient to adequately maintain and preserve buildings of historical significance on state lands. Additional funding is needed for historic facility repair and maintenance to address the backlog of maintenance and repair needs, improve energy efficiency, and ensure state historical buildings and artifacts are safe and accessible to the public.

Shooting Ranges

General Background

To provide shooting opportunities to the public, the DNR has four staffed shooting ranges, two ranges operating through a twenty-year lease, seven official unstaffed shooting ranges, and numerous unofficial ranges on state lands. The staffed and leased shooting ranges generate revenue for the Department from fees and concessions. The Department signed a twenty-year lease with Michigan Shooting Centers, Inc., starting October 1, 2009, for the operation and maintenance of the Bald Mountain and Island Lake shooting ranges.

Staffed Shooting Ranges

Ortonville: Ortonville, Oakland County
Pontiac Lake: Waterford, Oakland County
Rose Lake: Bath, Clinton County
Sharonville: Grass Lake, Jackson County

Leased Shooting Ranges

Bald Mountain: Lake Orion, Oakland County
Island Lake: Brighton, Livingston County

The ranges provide locations for licensed hunters to practice archery and firearm shooting. The ranges are utilized by hunter education groups, scouting groups, 4-H groups, persons with disabilities, and other youth and non-traditional user groups as locations to receive hands-on firearm and archer safety education training. The ranges provide safe and controlled settings for the general public to develop skills and proficiency in firearm use, with a natural tie-in with hunting sports.

The Department has identified numerous expansion, maintenance, upgrade, and repair needs for the shooting range system. There appears to be a large demand for expanded facilities. However, limited funding and local opposition are impediments.

Inventory

An inventory of the structures within the shooting range system is completed on an annual basis. The last inventory was completed during 2013 as part of the Department's Building Census Project.

Assessment

A professional assessment has not been completed. Internal assessments are completed on an ongoing basis each year. A Firearm and Archery Range Master Plan was completed in 1994 and is also available.

Priority projects that are currently unfunded include the construction of a classroom facility at the Rose Lake shooting range, the upgrade of state game and state forest area gravel pit-type shooting ranges, the construction of state-of-the-art shooting facilities near Grand Rapids and Marquette, and the construction of a staff-operated shooting range in Newberry. Facilities at Bald Mountain, Island Lake, Ortonville, Pontiac Lake, Rose Lake, and Sharonville should be expanded based on the demand for such renovations. The Department is also considering the addition of archery ranges (including 3-D courses) at Island Lake and Bald Mountain, the upgrade of traditional archery target practice facilities at Pontiac Lake and Rose Lake, and construction of archery ranges at state and local parks.

Recent Accomplishments

Federal Pittman/Robertson funding was awarded in FY 2013 to construct restroom facilities at the Ortonville, Pontiac Lake and Sharonville shooting ranges. Marketing and Outreach Division (MOD) is working cooperatively with the Department of Technology, Management, and Budget on these projects, which are expected to be completed by the end of the calendar year.

In addition, federal Pittman/Robertson funding was awarded in FY 2013 to renovate the Pontiac Lake shooting range to address noise abatement needs. This project is also ongoing.

Priorities

Top priorities for FY 2014 and the next five fiscal years include:

- Renovation of the Dansville shooting range – A Michigan Natural Resources Trust Fund (MNRTF) grant was awarded for this project in FY 2012. The project is linked to the Department strategies of Operational Need, Accessibility, and Recreational Opportunities in or Near Urban Areas.
- Renovation of the Ortonville shooting range to add a firing line enclosure to eliminate blue sky, construct a perimeter fence, address ADA compliance, build a storage building, add concrete sidewalks, expand and pave the parking lot, and upgrade for sporting clays shooting – Possible funding sources include program income, federal funds, and private donations. This project is linked to the Department strategies of Operational Need and Recreational Opportunities in or Near Urban Areas.
- Renovation of the Pontiac Lake shooting range to address sound issues, build a handgun range, construct a pavilion and storage building, address ADA compliance, and upgrade for sporting clays shooting – Possible funding sources include federal funds, program income, and private donations. This project is linked to the Department strategies of Operational Need, Accessibility, and Recreational Opportunities in or Near Urban Areas.
- Renovation of the Rose Lake shooting range to build an educational building, construct a storage building, address ADA compliance, expand and pave the parking lot, and upgrade for sporting clays shooting – Possible funding sources include program income, federal funds, and private donations. This project is linked to the Department strategies of Operational Need and Recreational Opportunities in or Near Urban Areas.
- Renovation of the Sharonville shooting range to build a storage building, construct a handgun range, address ADA compliance, expand and pave the parking lot, and upgrade for sporting clays shooting – Possible funding sources include program income, federal funds, and private donations. This project is linked to the Department strategies of Operational Need and Recreational Opportunities in or Near Urban Areas.
- Renovation of the Marketing and Outreach, Rose Lake Warehouse complex building that is used for maintenance activities and storing supplies for distribution across the shooting range network – Possible funding sources include program income and federal funds. This project is linked to the Department strategies of Operational Need, Accessibility, and Recreational Opportunities in or Near Urban Areas.

- Construction of archery ranges in state and local parks – Possible funding sources include federal and state funds and private donations. This project is linked to the Department strategies of Operational Need, Accessibility, and Recreational Opportunities in or Near Urban Areas.
- Additions to the clubhouses at the Bald Mountain and Island Lake shooting ranges – Possible funding sources include program income, federal funds, and private donations. The projects are linked to the Department strategies of Operational Need, Accessibility, and Recreational Opportunities in or Near Urban Areas.
- Construction of a staff-operated shooting range in Newberry – The Department purchased twenty acres of land adjacent to the Newberry warehouse complex in 2005, with the intent to construct a shooting range on the property. There is no estimate for the cost of this project, although past construction projects would suggest a cost of more than \$1 million. Possible funding sources for this project include federal funds and MNRTF grant funding. This project is linked to the Department strategies of Operational Need and Accessibility.
- Upgrade of state game and state forest area shooting ranges (three are officially designated shooting ranges). There is no estimate for the cost of this project, although past construction projects would suggest a cost of more than \$1 million. Possible funding sources for this project include federal funds and MNRTF grant funding. This project is linked to the Department strategies of Operational Need, Preventative Maintenance, and Accessibility.
- Construction of state-of-the-art shooting facilities near Grand Rapids and Marquette. There is no estimate for the cost of these projects. A comparison could be made to the construction of the Island Lake shooting range, which cost over \$3 million back in October 2004. Possible funding sources for these projects include federal funds and MNRTF grant funding. The projects are linked to the Department strategies of Accessibility and Recreational Opportunities in or Near Urban Areas.
- Renovation of the Belding Sportsman's Club and Lake Superior Sportsman's Club shooting ranges. Possible funding sources for these projects include federal funds, MNRTF grant funding, and private donations. The projects are linked to the Department strategies of Accessibility and Recreational Opportunities in or Near Urban Areas.

Interpretive Centers

General Background

The DNR operates eight interpretive centers, six at Michigan state parks and two at Michigan state fish hatcheries. Most of these visitor centers are staffed by full-time interpreters. Tahquamenon Falls State Park and Ludington State Park are additional sites where interpretive programs are provided. Marketing and Outreach Division is responsible for programming. Fisheries Division and Parks and Recreation Division handle major maintenance and capital improvements. More than 300,000 people visit these centers annually.

Visitor Centers

State Parks

Carl T. Johnson Hunting & Fishing Center – Mitchell State Park
Eddy Discovery Center – Waterloo State Recreation Area
Gillette Sand Dune Visitor Center – Hoffmaster State Park
Michigan Forest Visitor Center – Hartwick Pines State Park
Saginaw Bay Visitor Center – Bay City State Recreation Area
Wilderness Visitor Center – Porcupine Mountains State Park

Fish Hatcheries

Michigan Fisheries Visitor Center – Oden State Fish Hatchery
Wolf Lake State Fish Hatchery Visitor Center

Inventory/Assessment

An inventory of the Department's visitor centers has been completed. Assessments of the condition of the buildings are also completed by the staff of Fisheries Division and Parks & Recreation Division on an ongoing basis.

Recent Accomplishments

Parks & Recreation Division completed a renovation of the historic Ludington Beach House, and there are plans for some interpretive exhibits in the upper level. In addition, Fisheries Division completed a trail resurfacing project at the Michigan Fisheries Visitor Center. Archery ranges were also completed at Hoffmaster State Park, Tahquamenon Falls State Park, Waterloo State Recreation Area, Wolf Lake State Fish Hatchery, and Ludington State Park.

Priorities

The Oden fish pond is in need of a fishing dock and bank stabilization to meet the growing number of youth angling programs. A Michigan Natural Resources Trust Fund (MNRTF) grant has been awarded, and the work is expected to be completed by spring 2014.

Unfunded but important priorities for the near future include an amphitheater and archery range at Hartwick Pines State Park and a fishing pond at the Rivermouth Unit of Tahquamenon Falls State Park. The fishing pond at the Wolf Lake State Fish Hatchery is also in need of improvements to facilitate introductory fishing programs and improve accessibility at the site. A MNRTF grant application has been submitted for the next grant cycle.

Other priorities include the evaluation of additional locations for adjacent archery ranges. The possible addition of archery ranges at the visitor center sites would support

the Department's commitment toward continued development of outdoor education opportunities.

IMPLEMENTATION PLAN

Capital outlay appropriations will be needed to address priority infrastructure maintenance, repair, and improvement needs across the DNR. Repair and replacement of critical infrastructure that is rapidly aging and deteriorating has become increasingly difficult due to limited funding. Future appropriation requests will reflect the Department's best efforts to leverage available funding and selectively address infrastructure needs that exist based on the priorities laid out in this plan. These priorities are consistent with the Department's capital outlay planning strategy and core strategic goals.

APPENDIX

Operations Service Center (OSC) and Field Office Locations

OSCs (9)

Baraga
Bay City
Cadillac
Gaylord
Marquette
Newberry
Plainwell
Roscommon
Southfield

Field Offices (16)

Atlanta
Baldwin
Crystal Falls
Escanaba
Gladwin
Grayling
Gwinn
Ishpeming
Mio
Naubinway
Norway
Rose Lake
Sault Ste. Marie
Shingleton
Stephenson
Traverse City

State Game and Wildlife Areas by County

Alger County:

Au Train Basin State Wildlife Management Area
Cusino State Wildlife Research Area

Allegan County:

Allegan State Game Area

Antrim County:

Petobego State Game Area

Arenac County:

Wigwam Bay State Wildlife Area

Baraga County:

Baraga Plains State Wildlife Management Area

Barry County:

Barry State Game Area
Middleville State Game Area

Bay County:

Crow Island State Game Area
Nayanquing Point State Wildlife Area
Pinconning Township State Game Area (mini)
Quanicassee State Wildlife Area
Tobico Marsh Game Unit of Bay City State Recreation Area

Benzie County:

Betsie River State Game Area

Berrien County:

Boyle Lake State Wildlife Area (mini)

Cass County:

Crane Pond State Game Area
Three Rivers State Game Area

Charlevoix County:

Beaver Islands State Wildlife Research Area
Beaver Island Group of Beaver Islands State Wildlife Research Area

Chippewa County:

Drummond Island
Munuscong State Wildlife Management Area

State Game and Wildlife Areas by County

Clinton County:

Maple River State Game Area
Muskrat Lake State Game Area (mini)
Portland State Game Area
Rose Lake State Wildlife Area

Delta County:

Portage Marsh State Wildlife Management Area

Gladwin County:

Gladwin State Wildlife Area

Grand Traverse County:

Petobego State Game Area

Gratiot County:

Gratiot-Saginaw State Game Area
Maple River State Game Area
Maple-River - Gratiot-Saginaw Connector State Game Area

Hillsdale County:

Adams Township State Game Area (mini)
Lost Nation State Game Area
Somerset State Game Area

Houghton County:

Sturgeon River Sloughs State Wildlife Management Area

Huron County:

Brookfield Township No.1 State Game Area (mini)
Brookfield Township No.2 State Game Area (mini)
Flynn State Game Area (mini)
Gagetown State Game Area
Oliver Township State Game Area (mini)
Rush Lake State Game Area
Verona State Game Area
Wildfowl Bay State Wildlife Area

Ingham County:

Dansville State Game Area

Ionia County:

Flat River State Game Area
Grand River State Game Area (mini)
Maple River State Game Area
Portland State Game Area

State Game and Wildlife Areas by County

Ionia County (Cont.):

Saranac-Lowell State Game Area

Isabella County:

Edmore State Game Area

Jackson County:

Grass Lake Unit State Game Area

Sharonville State Game Area

Waterloo Game Unit of Waterloo State Recreation Area

Kalamazoo County:

Augusta Creek State Fish and Wildlife Area

Fulton State Game Area

Gourdneck State Game Area

Kent County:

Cannonsburg State Game Area

Rogue River State Game Area

Saranac-Lowell State Game Area

Lapeer County:

Lapeer State Game Area

Leelanau County:

Beaver Islands State Wildlife Research Area

Beaver Island Group of Beaver Islands State Wildlife Research Area

North Manitou Island (Entire island is federal land)

Lenawee County:

Onsted State Game Area

Livingston County:

Gregory State Game Area

Hillcrest State Game Area (mini)

Oak Grove State Game Area

Pinckney State Recreation Area

Mackinac County:

Bois Blanc Island

Macomb County:

Chesterfield Township State Game Area (mini)

Salt River Marsh State Wildlife Area (mini)

St. Clair Township State Game Area (mini)

State Game and Wildlife Areas by County

Manistee County:

Manistee River State Game Area

Mason County:

Pere Marquette State Game Area

Mecosta County:

Haymarsh Lake State Game Area

Martiny Lake State Game Area

Missaukee County:

Houghton Lake State Wildlife Research Area

Monroe County:

Erie State Game Area

Petersburg State Game Area

Pointe Aux Peaux State Wildlife Area (mini)

Pointe Mouillee State Game Area

Montcalm County:

Edmore State Game Area

Flat River State Game Area

Langston State Game Area

Stanton State Game Area

Vestaburg State Game Area

Muskegon County:

Muskegon State Game Area

Newaygo County:

Muskegon State Game Area

Oakland County:

Davisburg State Wildlife Area (mini)

Holly Game Unit of Holly State Recreation Area

Horseshoe Lake State Game Area (mini)

Oceana County:

Pentwater River State Game Area

Ottawa County:

Blendon Township State Game Area (mini)

Grand Haven State Game Area

Olive Township State Game Area (mini)

(Note: Blendon Township State Game Area (mini) and Olive Township State Game Area (mini) are frequently grouped together and referred to as the Ottawa County State Game Areas)

State Game and Wildlife Areas by County

Roscommon County:

Backus Creek State Game Area
Houghton Lake State Wildlife Research Area

Saginaw County:

Crow Island State Game Area
Gratiot-Saginaw State Game Area
Shiawassee River State Game Area

St. Clair County:

Port Huron State Game Area
St. Clair Flats State Wildlife Area
St. Johns Marsh State Wildlife Area

St. Joseph County:

Fabius Lake State Game Area (mini)
Leidy Lake State Game Area (mini)
Three Rivers State Game Area

Sanilac County:

Minden City State Game Area
Sanilac State Game Area

Shiawassee County:

Rose Lake State Wildlife Area

Tuscola County:

Almer Township State Game Area (mini)
Cass City State Game Area
Columbia Township State Game Area (mini)
Deford State Game Area
Denmark Township State Game Area (mini)
Elmwood Township State Game Area (mini)
Fish Point State Wildlife Area
Flynn State Game Area (mini)
Gagetown State Game Area
Murphy Lake State Game Area
Quanicassee State Wildlife Area
Tuscola State Game Area
Vassar State Game Area

Van Buren County:

Keeler State Game Area (mini)

State Game and Wildlife Areas by County

Washtenaw County:

Chelsea State Game Area

Goose Lake State Game Area (mini)

Pinckney State Recreation Area

Sharonville State Game Area

Waterloo Game Unit of Waterloo State Recreation Area

Wayne County:

Brownstown Prairie State Wildlife Area (mini)

Pointe Mouillee State Game Area

Michigan State Parks System

State Parks (70)

Algonac SP
Aloha SP
Baraga SP
Bewabic SP
Brimley SP
Burt Lake SP
Charters Traverse City SP
Cheboygan SP
Clear Lake SP
Coldwater SP
Craig Lake SP
Dodge 4 SP
Duck Lake SP
Fisherman's Island SP
Grand Haven SP
Grand Mere SP
Harrisville SP
Hartwick Pines SP
Hayes SP
Hoeft SP
Hoffmaster SP
Holland SP
Indian Lake SP
Interlochen SP
Lake Gogebic SP
Lakeport SP
Laughing Whitefish Falls SP
Leelanau SP
Ludington SP
Maybury SP
McLain SP
Mears SP
Meridian Baseline SP
Milliken SP & Harbor
Mitchell SP
Muskallonge Lake SP
Muskegon SP
Negwegon SP
Newaygo SP
North Higgins Lake SP
Old Mission Peninsula SP
Onaway SP
Orchard Beach SP
Otsego Lake SP
Palms Book SP
Petoskey SP
Porcupine Mountains Wilderness SP
Port Crescent SP
Sanilac Petroglyphs SP
Saugatuck Dunes SP
Seven Lakes SP
Silver Lake SP
Sleeper SP
Sleepy Hollow SP

State Parks - Cont. (70)

South Higgins Lake SP
Sterling SP
Straits SP
Sturgeon Point SP
Tahquamenon Falls SP
Tawas Point SP
Thompson's Harbor SP
Twin Lakes SP
Van Buren SP
Van Riper SP
Warren Dunes SP
Warren Woods SP
Wells SP
Wilderness SP
Wilson SP
Young SP

Historic State Parks (3)

Cambridge Junction HSP
Fayette HSP
Fort Wilkins HSP

State Recreation Areas (23)

Bald Mountain RA
Bass River RA
Bay City RA
Brighton RA
Fort Custer RA
Highland RA
Holly RA
Ionia RA
Island Lake RA
Lake Hudson RA
Lime Island RA
Menominee River RA
Metamora-Hadley RA
Ortonville RA
Pinckney RA
Pontiac Lake RA
Proud Lake RA
Rifle River RA
Rockport RA
Tippy Dam RA
Waterloo RA
Wetzel RA
Yankee Springs RA

State Scenic Sites (3)

Agate Falls SS
Bond Falls SS
Wagner Falls SS

State Linear Parks (5)

Hart-Montague Trail SP
Kal-Haven Trail SP
Lakelands Trail SP
Van Buren Trail SP
Fred Meijer White Pine Trail SP

Mackinac State Historic Parks (MSHP) Properties and Resources

I. MACKINAC ISLAND STATE PARK

- National Historic Landmark
- Originally Mackinac National Park (1875-1895)
- Michigan's first state park – 1895
- 1,773 acres, which is 82% of Mackinac Island
- Open all the time - 24 hours a day, 365 days a year
- Visitation - Serves 800,000 annual visitors to Mackinac Island, plus daily use by the 500 local residents
- Programs and Responsibilities:
 1. Care for historic buildings on state land
 - a. **Fort Mackinac 1780-1895**
 - Contains oldest buildings in Michigan
 - Outstanding collection of early Michigan artifacts and documents
 - Completely restored since 1958
 - Museum displays, A/V program, and living history programs
 - Major tourist attraction, with annual paid visitation of 210,000
 - b. Other historic buildings located outside Fort Mackinac, including: Biddle House, McGulpin House, Geary House, Fort Holmes, Beaumont Memorial, The Richard and Jane Manoogian Mackinac Art Museum at the Indian Dormitory, Mission Church and Mission House, Island House, Life Saving Station, Governor's Summer Residence
 - c. Supervision and regulation of privately owned historic houses on state-leased land
 2. Operate Visitor's Center and provide public restrooms for park visitors
 3. Care for natural environment containing forest and wetlands
 4. Maintain 70.5 miles of signed and interpreted roads and trails
 5. Maintain M-185 in cooperation with Michigan Department of Transportation
 6. Provide dock for major construction activities
 7. Operate and maintain year-round airport with a lighted 3,500 foot runway, parallel taxiway, and staffed terminal
 8. Provide land for Island infrastructure systems: water, wastewater, landfill, fire station, and cemeteries

9. Provide security and public safety:
 - a. Promulgate and enforce state park rules
 - b. Provide police protection through arrangements with state police, county sheriff, city police, and conservation officers
 - c. Assist with fire protection through contract with local municipality, by plowing all streets in the winter, providing two fire engines, and providing land for fire station
10. License commercial horse-drawn transportation, including fifty-five sightseeing carriages, seventeen taxicabs, eighteen drive-yourself carriages, and twenty-one livery carriages
11. Acquire (by gift or purchase) additional lands and historic properties, conservation and historic easements, and development rights
12. Lease lands for recreational activities, including golf courses and Great Turtle Park
11. Grant franchises for electricity and cable television
12. Maintain Executive summer residence
13. Maintain and operate Mackinac Island Scout Service Camp, serving 700 boy and girl scouts annually
14. Provide professional historical expertise to local community

II. MICHILIMACKINAC STATE PARK

- Located in Mackinaw City
- Michigan's second state park
- Thirty-seven acres with 2,100 feet of Great Lakes shoreline
- Programs and Responsibilities:
 1. Reconstruct **Colonial Michilimackinac**
 - Site of eighteenth century fur trading community (1715-1780)
 - Major archaeological excavation (1959-present) with over one million artifacts recovered
 - Reconstructed palisades and twelve structures
 - Museum displays, A/V program, living history programs
 - Major tourist attraction, with annual visitation of 100,000
 - Museum open May 15-October 15
 - National Historic Landmark
 2. Restore **Old Mackinac Point Lighthouse**
 - Operated as a lighthouse from 1892-1957
 - Includes fog signal building, barn, and associated grounds
 - Ongoing restoration, with museum displays, live interpretation and tours of the light tower
 - Major tourist attraction, with annual visitation of 30,000
 3. Operate Visitor's Center and provide public restrooms for park visitors
 4. Provide picnic and bridge viewing areas

III. HISTORIC MILL CREEK STATE PARK

- National Register Historic Site
- Site of **Historic Mill Creek Discovery Park**
- Located four miles east of Mackinaw City on U.S. 23
- 625 acres with 3,250 feet of Great Lakes shoreline
- Open May 15-October 15, with an annual paid visitation of 40,000
- Programs and Responsibilities:
 1. Site of first industrial site in Northern Michigan (1790-1839)
 2. Major archaeological site with ongoing excavations
 3. Reconstruction and interpretation of Historic Mill Creek Discovery Park: mill dam, sawmill, British workshop, millwright's house, three miles of nature trails with interpretive signs, high ropes course activities integrated with natural history interpretation program
 4. Visitor's Center and concession building with museum exhibits and A/V program
 5. Maintenance of natural environment, including a prime trout stream and beaver pond

IV. ADMINISTRATIVE AND RESEARCH OFFICE

- Summer administrative office on Mackinac Island; Winter administrative office in Mackinaw City
- Historical research facility (Petersen Center) in Mackinaw City
 - a. 80,000 books, plans, maps, archival documents, photographs and slides
 - b. Archaeological laboratory and artifact storage area with over 1,000,000 artifacts in Mackinaw City
- Historic object storage area (Heritage Center) on Mackinac Island includes original furnishings, decorative arts, tools, firearms, photographs, glass plate negatives, and surface-find artifacts

Michigan State Harbors

<u>Site ID</u>	<u>Site Name</u>
A-06-201	Au Gres
A-16-202	Straits
A-17-201	Whitefish Point
A-17-204	De Tour
A-17-205	Lime Island
A-21-201	Fayette - Snail Shell
A-32-203	Port Austin
A-35-201	East Tawas
A-42-201	Eagle Harbor
A-42-202	Copper Harbor
A-42-203	Lac La Belle
A-48-201	Little Lake
A-49-204	Mackinac Island
A-55-201	Cedar River
A-71-201	Hammond Bay
A-71-203	Presque Isle
A-76-202	Lexington
A-82-201	Grayhaven
A-82-203	Milliken

Michigan Grant-In-Aid Harbors

<u>County</u>	<u>Site Name</u>
Alcona	Harrisville Harbor
Alger	Burt Twp. - Grand Marais Marina
Alger	Munising Bayshore Marina
Alpena	Alpena Municipal Marina
Antrim	Elk Rapids - Edward C. Grace
Baraga	Baraga Municipal Marina
Baraga	L'anse Municipal Marina
Bay	Bay City Liberty Harbor
Benzie	Frankfort Municipal Marina
Berrien	New Buffalo Municipal Marina
Berrien	St. Joseph - West Basin Marina
Charlevoix	Boyne City - Grant Moore Marina
Charlevoix	Charlevoix Municipal Marina
Charlevoix	East Jordan City Marina
Charlevoix	St. James Twp. - Beaver Island Marina
Cheboygan	Cheboygan County Marina
Cheboygan	Cheboygan City Municipal Marina
Cheboygan	Mackinaw City Municipal Marina
Chippewa	Sault Ste. Marie - Kemp Marina
Chippewa	Sault Ste. Marie - Charles T. Harvey Marina
Delta	Escanaba Municipal Marina
Delta	Gladstone Municipal Marina
Emmet	Harbor Springs Municipal Marina
Emmet	Petoskey City Marina

Michigan Grant-In-Aid Harbors

<u>County</u>	<u>Site Name</u>
Grand Traverse	Traverse City - Duncan L. Clinch Marina
Houghton	Grand Traverse Bay Marina
Houghton	Houghton County Marina
Houghton	Houghton City Marina
Huron	Caseville Municipal Harbor
Huron	Harbor Beach Municipal Marina
Huron	Sebewaing Municipal Marina
Leelanau	Elmwood Twp. - Grelickville Marina
Leelanau	Leland Twp. Marina
Leelanau	Northport - G. Marsten Dame Marina
Leelanau	Suttons Bay Marina
Mackinac	Bois Blanc Island Marina
Mackinac	Clark Twp. - Cedarville Harbor
Mackinac	Clark Twp. - Hessel Marina
Mackinac	Garfield Twp. - Naubinway Marina
Mackinac	St. Ignace Municipal Marina
Macomb	Lake St. Clair Metropark Marina
Manistee	Arcadia Harbor
Manistee	Manistee Municipal Marina
Marquette	Big Bay Harbor
Marquette	Marquette - Cinder Pond Marina
Marquette	Marquette - Presque Isle Marina
Mason	Ludington Municipal Marina
Menominee	Menominee Marina

Michigan Grant-In-Aid Harbors

<u>County</u>	<u>Site Name</u>
Muskegon	Muskegon - Hartshorn Marina
Muskegon	Whitehall - White Lake Municipal Marina
Oceana	Pentwater Municipal Marina
Ontonagon	Ontonagon Municipal Marina
Ottawa	Grand Haven Marina
Presque Isle	Rogers City Marina
Sanilac	Port Sanilac Municipal Harbor
Schoolcraft	Manistique Municipal Marina
St. Clair	Port Huron - River St. Marina
St. Clair	Port Huron - Fort St. Marina
St. Clair	St. Clair - Charles F. Moore
VanBuren	South Haven Municipal Marina
Wayne	Elizabeth Park Marina
Wayne	Erma Henderson Marina
Wayne	Lake Erie Metropark Marina

Michigan State Boating Access Sites
(Developed Sites Only)

<u>Site ID</u>	<u>Site Name</u>	<u>County</u>
A-01-002	Killmaster	Alcona
A-01-003	East Bay	Alcona
A-01-004	Harrisville State Park	Alcona
A-01-007	Harrisville	Alcona
A-01-009	South Bay	Alcona
A-02-001	Deer Lake	Alger
A-02-003	Sand Lake	Alger
A-02-009	Nawakwa Lake	Alger
A-02-010	Whitefish River	Alger
A-03-001	Big Lake	Allegan
A-03-002	Hacklander	Allegan
A-03-003	Duck Lake	Allegan
A-03-004	Green Lake	Allegan
A-03-005	Selkirk	Allegan
A-03-006	Pike Lake	Allegan
A-03-007	Miner Lake	Allegan
A-03-008	Swan Lake	Allegan
A-03-009	Lake Sixteen	Allegan
A-03-010	Sheffer Lake	Allegan
A-03-012	Base Line Lake	Allegan
A-03-013	Allegan Dam - East	Allegan
A-03-024	Pine Creek Impoundment	Allegan
A-03-025	Base Line Lake - South	Allegan
A-03-026	Eagle Lake	Allegan
A-03-028	Scott Creek	Allegan
A-04-001	Fletcher Pond	Alpena
A-04-002	Thunder Bay River	Alpena
A-04-003	Seven Mile Pond	Alpena
A-04-004	Devil's River	Alpena
A-04-008	Rockport	Alpena
A-04-010	Snug Harbor	Alpena
A-04-011	Devil's Lake	Alpena
A-04-014	Losinski Road	Alpena
A-05-001	Ellsworth Lake	Antrim
A-05-002	Clam Lake	Antrim
A-05-003	Deep Water Point	Antrim

Michigan State Boating Access Sites
(Developed Sites Only)

<u>Site ID</u>	<u>Site Name</u>	<u>County</u>
A-05-006	Central Lake	Antrim
A-05-007	Intermediate River	Antrim
A-05-008	Lake Bellaire	Antrim
A-05-009	Openo Park	Antrim
A-05-010	St. Clair Lake	Antrim
A-05-011	Green Lake	Antrim
A-05-012	Henry Lake	Antrim
A-05-013	Cedar River	Antrim
A-05-014	Cedar River #2	Antrim
A-05-015	Cedar River #3	Antrim
A-05-016	Cedar River #4	Antrim
A-05-017	Warner Creek	Antrim
A-05-018	Jordan River	Antrim
A-05-019	Lake of the Woods	Antrim
A-05-020	East Port	Antrim
A-05-021	Webster Bridge	Antrim
A-05-022	Wilson Lake	Antrim
A-05-023	Torch River Bridge	Antrim
A-05-024	Torch Lake (West side)	Antrim
A-05-025	Chestonia Bridge	Antrim
A-05-026	Elk Lake	Antrim
A-05-027	Lake Bellaire	Antrim
A-05-028	Steiner Road	Antrim
A-05-030	Birch Lake	Antrim
A-05-031	Fisherman's Paradise	Antrim
A-06-003	Wigwam Bay	Arenac
A-06-004	Omer	Arenac
A-06-005	Pine River Mouth	Arenac
A-06-006	Moffatt Bridge	Arenac
A-06-101	Singing Bridge	Arenac
A-07-001	Vermilac Lake	Baraga
A-07-003	Ned Lake	Baraga
A-07-004	Ruth Lake	Baraga
A-07-006	East Branch Falls	Baraga
A-07-007	Silver River	Baraga

**Michigan State Boating Access Sites
(Developed Sites Only)**

<u>Site ID</u>	<u>Site Name</u>	<u>County</u>
A-07-008	Rocky Beach	Baraga
A-07-010	Sturgeon River	Baraga
A-07-011	De Hoss Creek	Baraga
A-07-012	Keewaydin Lake	Baraga
A-07-015	Parent Lake	Baraga
A-07-016	Ole Nelson Lake	Baraga
A-07-017	Roland Lake	Baraga
A-07-018	Six Mile Creek	Baraga
A-07-024	Baraga State Park	Baraga
A-07-025	Silver River Falls	Baraga
A-08-001	Middle Lake	Barry
A-08-002	Jordan Lake	Barry
A-08-003	Fine Lake	Barry
A-08-004	Payne Lake	Barry
A-08-005	Irving Road	Barry
A-08-006	Cloverdale	Barry
A-08-007	Clear Lake	Barry
A-08-008	Carter Lake	Barry
A-08-009	Duncan Lake	Barry
A-08-010	Long Lake (Dowling)	Barry
A-08-011	Bristol Lake	Barry
A-08-012	Leach Lake	Barry
A-08-013	Thornapple Lake	Barry
A-08-014	Yankee Springs R.A.	Barry
A-08-015	Fish Lake	Barry
A-08-017	Chief Noonday Lake	Barry
A-08-018	Deep Lake	Barry
A-08-019	Hall Lake	Barry
A-08-020	Long Lake	Barry
A-08-021	McDonald Lake	Barry
A-08-022	Williams Lake	Barry
A-08-030	Yankee Springs R.A.	Barry
A-08-032	Airport Road	Barry
A-08-034	Fair Lake	Barry
A-09-002	Kawkawlin River	Bay

**Michigan State Boating Access Sites
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<u>Site ID</u>	<u>Site Name</u>	<u>County</u>
A-09-004	Coggins Road	Bay
A-09-008	Saginaw River Mouth	Bay
A-10-002	Platte Lake	Benzie
A-10-003	Goose Road	Benzie
A-10-004	Upper Herring Lake	Benzie
A-10-005	Shorter Lake	Benzie
A-10-006	Crystal Lake	Benzie
A-10-007	Brooks Lake	Benzie
A-10-009	River Road	Benzie
A-10-010	Case Bridge	Benzie
A-10-011	Turtle Lake	Benzie
A-10-013	Lower Herring Lake	Benzie
A-10-014	Hayes Bridge	Benzie
A-10-015	Davis Lake	Benzie
A-10-016	Stevens Lake	Benzie
A-10-017	Herendeene Lake	Benzie
A-10-018	Homestead Pond	Benzie
A-10-020	Little Platte Lake	Benzie
A-10-101	Grace Road	Benzie
A-10-102	Homstead Dam	Benzie
A-10-103	U.S. 31	Benzie
A-11-001	Paw Paw Lake - West	Berrien
A-11-002	Paw Paw Lake - East	Berrien
A-11-003	Galien River	Berrien
A-11-004	Black Lake	Berrien
A-11-008	Buchanan	Berrien
A-11-012	Benton Harbor	Berrien
A-11-013	Jasper Dairy Road	Berrien
A-11-015	Grand Mere State Park	Berrien
A-12-001	Randall Lake	Branch
A-12-002	Coldwater Lake	Branch
A-12-003	Marble Lake	Branch
A-12-004	Lake of the Woods	Branch
A-12-006	Loon Lake Channel	Branch
A-12-007	Cary Lake	Branch

Michigan State Boating Access Sites
(Developed Sites Only)

<u>Site ID</u>	<u>Site Name</u>	<u>County</u>
A-12-008	Lake George	Branch
A-12-009	Matteson Lake	Branch
A-12-010	Kenyon Lake	Branch
A-12-011	Lake Lavine	Branch
A-12-012	Middle Lake	Branch
A-12-013	Union Lake	Branch
A-12-014	Silver Lake	Branch
A-12-015	Craig Lake	Branch
A-12-017	Oliverda Lake	Branch
A-13-001	Nottawa Lake	Calhoun
A-13-002	Goguac Lake	Calhoun
A-13-004	Lanes Lake	Calhoun
A-13-005	Duck Lake	Calhoun
A-13-006	Warner Lake	Calhoun
A-13-007	Upper Brace Lake	Calhoun
A-13-008	Lee Lake	Calhoun
A-13-009	Prairie Lake	Calhoun
A-13-010	Winnipeg Lake	Calhoun
A-13-011	Gordon Lake	Calhoun
A-13-012	Wabascon Lake	Calhoun
A-13-019	Ackley Lake	Calhoun
A-14-001	Fish Lake	Cass
A-14-002	Dowagiac River	Cass
A-14-004	Magician Lake	Cass
A-14-005	Paradise Lake	Cass
A-14-006	Diamond Lake	Cass
A-14-007	Hemlock Lake	Cass
A-14-008	Donnell Lake	Cass
A-14-010	Stone Lake	Cass
A-14-011	Driskels Lake	Cass
A-14-012	Juno Lake	Cass
A-14-013	Harwood Lake	Cass
A-14-014	Corey Lake	Cass
A-14-015	Bair Lake	Cass
A-14-016	Chain Lake	Cass

Michigan State Boating Access Sites
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<u>Site ID</u>	<u>Site Name</u>	<u>County</u>
A-14-017	Long Lake	Cass
A-14-023	Dewey Lake	Cass
A-14-024	Christiann Creek	Cass
A-15-001	Susan Lake	Charlevoix
A-15-002	Six Mile Lake	Charlevoix
A-15-003	Boyne River	Charlevoix
A-15-004	Boyne Falls Mill Pond	Charlevoix
A-15-005	Dutchmans Bay	Charlevoix
A-15-006	West Twin Lake	Charlevoix
A-15-007	Alba Road	Charlevoix
A-15-008	Thumb Lake	Charlevoix
A-15-010	Ironton	Charlevoix
A-15-011	Deer Lake	Charlevoix
A-15-012	Rogers Road Bridge	Charlevoix
A-15-014	Adams Lake	Charlevoix
A-15-015	Nowland Lake	Charlevoix
A-15-016	Nine Mile Point	Charlevoix
A-15-017	Horton Creek	Charlevoix
A-15-020	Young State Park	Charlevoix
A-15-024	Whiting Co Park	Charlevoix
A-16-002	Mullett Lake Village	Cheboygan
A-16-003	Cochran Lake	Cheboygan
A-16-004	Jewell Road	Cheboygan
A-16-005	Munro Lake	Cheboygan
A-16-006	Silver Lake	Cheboygan
A-16-007	Douglas Lake	Cheboygan
A-16-008	Garfield Road	Cheboygan
A-16-009	The Forks	Cheboygan
A-16-010	Meadows	Cheboygan
A-16-011	Trowbridge Road	Cheboygan
A-16-013	Long Lake	Cheboygan
A-16-014	Lancaster Lake	Cheboygan
A-16-015	Douglas Lake	Cheboygan
A-16-016	Rondo	Cheboygan
A-16-017	Black River	Cheboygan

Michigan State Boating Access Sites
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<u>Site ID</u>	<u>Site Name</u>	<u>County</u>
A-16-018	Sturgeon River	Cheboygan
A-16-020	Burt Lake	Cheboygan
A-16-024	Aloha State Park	Cheboygan
A-16-025	Burt Lake State Park	Cheboygan
A-16-026	Cheboygan State Park	Cheboygan
A-16-027	Cheboygan Dam	Cheboygan
A-17-001	Frenchman Lake	Chippewa
A-17-002	Old Eckerman Trout Pond	Chippewa
A-17-003	De Tour Village	Chippewa
A-17-004	De Tour Passage	Chippewa
A-17-005	Chub Creek	Chippewa
A-17-007	Waiska Bay	Chippewa
A-17-008	M-221 Bridge	Chippewa
A-17-009	Sugar Island	Chippewa
A-17-010	Caribou Lake	Chippewa
A-17-011	Tahquamenon Falls S.P.	Chippewa
A-17-018	Brimley State Park	Chippewa
A-17-020	Munuscong Lake	Chippewa
A-17-021	Neebish Island	Chippewa
A-17-026	Prentiss Bay	Chippewa
A-17-028	Tahquamenon Falls S.P.	Chippewa
A-17-030	Whitefish Point Harbor	Chippewa
A-17-031	Bay Mills	Chippewa
A-18-001	Long Lake	Clare
A-18-002	Five Lakes	Clare
A-18-003	Cranberry Lake	Clare
A-18-004	Windover Lake	Clare
A-18-005	Crooked Lake	Clare
A-18-006	Little Long Lake	Clare
A-18-007	Perch Lake	Clare
A-18-009	Clam River	Clare
A-18-010	Newton Creek	Clare
A-18-011	Lake George	Clare
A-18-012	Nestor Lake	Clare
A-18-013	Lily Lake	Clare

Michigan State Boating Access Sites
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<u>Site ID</u>	<u>Site Name</u>	<u>County</u>
A-18-014	Muskegon River	Clare
A-18-018	Arnold Lake	Clare
A-19-001	French Road	Clinton
A-19-002	Looking Glass River	Clinton
A-19-003	Muskrat Lake	Clinton
A-19-005	Sleepy Hollow State Park	Clinton
A-20-001	Sheep Pasture	Crawford
A-20-005	Manistee River	Crawford
A-20-006	Horseshoe Lake	Crawford
A-20-007	Bluegill Lake	Crawford
A-20-008	North Branch Au Sable	Crawford
A-20-009	Meads Landing	Crawford
A-20-011	Stephans Bridge	Crawford
A-20-012	South Branch Au Sable	Crawford
A-20-014	McMasters Bridge	Crawford
A-20-015	Connors Flats	Crawford
A-20-016	Steckert Bridge	Crawford
A-20-017	Guthrie Lake	Crawford
A-20-018	Section One Lake	Crawford
A-20-021	K. P. Lake	Crawford
A-20-022	Kolka Creek	Crawford
A-20-025	Smith Bridge	Crawford
A-20-027	Glory Lake	Crawford
A-20-029	Bright Lake	Crawford
A-20-033	North Higgins Lake S.P.	Crawford
A-21-001	Ford River Mouth	Delta
A-21-002	Burnt Camp	Delta
A-21-003	Stonington	Delta
A-21-005	Nahma	Delta
A-21-006	South Lake	Delta
A-21-007	Garden Bay	Delta
A-21-008	Escanaba River	Delta
A-21-009	West Branch Days River	Delta
A-21-011	Portage Point West	Delta
A-21-012	Ford River	Delta

**Michigan State Boating Access Sites
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<u>Site ID</u>	<u>Site Name</u>	<u>County</u>
A-21-013	Rapid River Northwest	Delta
A-21-014	Reno Creek	Delta
A-21-015	Rapid River East	Delta
A-21-016	Portage Bay	Delta
A-21-017	Kipling	Delta
A-21-019	Dam 3 Impoundment	Delta
A-21-020	Little Fish Dam River	Delta
A-21-021	Rapid River Mouth	Delta
A-21-023	Fayette State Park	Delta
A-21-026	Little Bay De Noc	Delta
A-22-001	Mary Lake	Dickinson
A-22-002	Pickereel Lake	Dickinson
A-22-003	Pine Creek	Dickinson
A-22-004	Crescent Pond	Dickinson
A-22-005	Hamilton Lake	Dickinson
A-22-006	Dam #3	Dickinson
A-22-007	Bass Lake	Dickinson
A-22-008	Norway Reservoir	Dickinson
A-22-009	Warren Pond	Dickinson
A-22-010	Silver Lake	Dickinson
A-22-011	Bergen Backwater	Dickinson
A-22-012	Benton Lake	Dickinson
A-22-013	Rock Lake	Dickinson
A-22-014	Solberg Lake	Dickinson
A-22-015	Edey Lake	Dickinson
A-22-016	Loretto	Dickinson
A-22-018	Six Mile Lake	Dickinson
A-22-019	Ford River	Dickinson
A-22-020	Sturgeon River	Dickinson
A-22-022	Pond #2	Dickinson
A-22-028	Bodelin Access Site	Dickinson
A-22-031	West Branch Sturgeon R.	Dickinson
A-22-032	South Lake	Dickinson
A-23-005	Smithville Dam	Eaton
A-23-006	Willow Highway	Eaton

Michigan State Boating Access Sites
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<u>Site ID</u>	<u>Site Name</u>	<u>County</u>
A-23-008	Narrow Lake	Eaton
A-24-001	Lake Paradise	Emmet
A-24-002	Round Lake	Emmet
A-24-003	Pickereel Lake	Emmet
A-24-005	Crooked Lake	Emmet
A-24-006	Wilderness State Park	Emmet
A-24-010	Wilderness State Park	Emmet
A-25-001	Lobdell Lake	Genesee
A-25-002	Lake Fenton	Genesee
A-25-003	Lake Ponemah	Genesee
A-26-001	Pratt Lake	Gladwin
A-26-002	North Branch Cedar River	Gladwin
A-26-003	Wiggins Lake	Gladwin
A-26-004	Lake Four	Gladwin
A-26-005	Lake Lancer	Gladwin
A-26-006	Wixom Lake - East	Gladwin
A-26-007	Cedar River	Gladwin
A-26-008	Wixom Lake - West	Gladwin
A-26-009	Secord Lake - South	Gladwin
A-26-011	Secord Lake - North	Gladwin
A-26-013	Ross Lake	Gladwin
A-27-001	Cisco Lake	Gogebic
A-27-002	Dinner Lake	Gogebic
A-27-003	Duck Lake	Gogebic
A-27-004	Thousand Island Lake	Gogebic
A-27-005	Lac Vieux Desert	Gogebic
A-27-006	Chaney Lake	Gogebic
A-27-007	Middle Brach Ontonagon River	Gogebic
A-27-008	Spring Creek	Gogebic
A-27-010	Clearwater Lake	Gogebic
A-27-011	Mud Creek Barrier Dam	Gogebic
A-27-012	Black River Lake	Gogebic
A-27-013	Lake Gogebic State Park	Gogebic
A-27-014	Lake Gogebic - East Side	Gogebic
A-27-015	Oman Creek	Gogebic

Michigan State Boating Access Sites
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<u>Site ID</u>	<u>Site Name</u>	<u>County</u>
A-28-002	Bowers Harbor	Grand Traverse
A-28-004	Spider Lake	Grand Traverse
A-28-008	River Road	Grand Traverse
A-28-010	Fish Lake	Grand Traverse
A-28-011	Silver Lake	Grand Traverse
A-28-012	Mason Creek	Grand Traverse
A-28-013	Ellis Lake	Grand Traverse
A-28-014	Cedar Lake	Grand Traverse
A-28-016	Lake Skegemog	Grand Traverse
A-28-018	Bass Lake - North	Grand Traverse
A-28-020	Green Lake	Grand Traverse
A-28-021	Cedar Hedge Lake Outlet	Grand Traverse
A-28-022	Cedar Hedge Lake	Grand Traverse
A-28-023	Bass Lake - South	Grand Traverse
A-28-024	Arbutus Lake #4	Grand Traverse
A-28-030	Interlochen State Park - Day Use	Grand Traverse
A-28-031	Interlochen State Park - Green Lake	Grand Traverse
A-28-033	East Arm	Grand Traverse
A-28-034	Interlochen State Park - Campground	Grand Traverse
A-29-001	Maple Road	Gratiot
A-30-001	Hemlock Lake	Hillsdale
A-30-002	Cub Lake	Hillsdale
A-30-003	Bear Lake	Hillsdale
A-30-004	Bird Lake	Hillsdale
A-30-005	Long Lake	Hillsdale
A-30-006	Round Lake	Hillsdale
A-30-007	Little Long Lake	Hillsdale
A-30-009	Lake Diane	Hillsdale
A-31-001	Otter Lake	Houghton
A-31-002	Clear Lake	Houghton
A-31-004	Bootjack	Houghton
A-31-005	Little Rice Lake	Houghton
A-31-006	Prickett Dam Backwaters	Houghton
A-31-007	Torch Bay	Houghton
A-31-008	Pilgrim River	Houghton

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<u>Site ID</u>	<u>Site Name</u>	<u>County</u>
A-31-009	Sandy Lake	Houghton
A-31-010	Mud Lake	Houghton
A-31-013	Rice Lake	Houghton
A-31-014	Pike Lake	Houghton
A-31-015	Boston Pond	Houghton
A-31-016	Hungarian Falls Scenic	Houghton
A-31-018	Twin Lakes State Park	Houghton
A-31-025	Lily Pond Ramp	Houghton
A-31-030	South Portage Entry	Houghton
A-32-001	Fin and Feather	Huron
A-32-004	Filion Road	Huron
A-32-005	Eagle Bay	Huron
A-32-007	Bay Port	Huron
A-32-008	Sumac Island	Huron
A-32-009	Grindstone City	Huron
A-32-012	Port Austin	Huron
A-33-004	Gale Road	Ingham
A-34-001	Morrison Lake	Ionia
A-34-002	Long Lake	Ionia
A-34-003	Muir	Ionia
A-34-010	Woodard Lake	Ionia
A-34-011	Saranac	Ionia
A-34-013	Webber Impoundment	Ionia
A-34-014	Sessions Lake	Ionia
A-34-016	White's Bridge	Ionia
A-34-101	Webber Dam	Ionia
A-35-001	Au Sable River Mouth	Iosco
A-35-002	Chain Lake	Iosco
A-35-006	Long Lake	Iosco
A-35-007	Floyd Lake	Iosco
A-35-008	Cedar Lake	Iosco
A-35-009	Tawas Lake	Iosco
A-35-010	Londo Lake	Iosco
A-35-013	East Tawas Launch Ramp	Iosco
A-35-101	Foote Dam	Iosco

**Michigan State Boating Access Sites
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<u>Site ID</u>	<u>Site Name</u>	<u>County</u>
A-36-001	Third Fortune Lake	Iron
A-36-002	Tamarack Lake	Iron
A-36-004	Stanley Lake	Iron
A-36-005	Deadman's Lake	Iron
A-36-006	Emily Lake	Iron
A-36-007	Holmes Lake	Iron
A-36-008	Paint River	Iron
A-36-010	Scott Lake	Iron
A-36-011	Net River	Iron
A-36-012	Fire Lake	Iron
A-36-013	Indian Lake	Iron
A-36-014	Cable Lake	Iron
A-36-015	Camp Lake	Iron
A-36-017	Swan Lake	Iron
A-36-018	Lake Mary	Iron
A-36-019	Long Lake	Iron
A-36-020	Erickson's Landing	Iron
A-36-022	Carney Dam	Iron
A-36-023	The Wide Waters	Iron
A-36-024	Camp 6 Creek Pond	Iron
A-36-025	Snake Rapids	Iron
A-36-026	Mitchell Lake	Iron
A-36-028	Bewabic State Park	Iron
A-36-030	Snipe Lake	Iron
A-36-031	Paint River Bridge	Iron
A-36-101	Fortune Lake Mine Pit	Iron
A-37-001	Littlefield Lake	Isabella
A-37-002	Pine River	Isabella
A-37-003	Stevenson Lake	Isabella
A-38-001	Center Lake	Jackson
A-38-002	Crispell Lake	Jackson
A-38-003	Portage Lake	Jackson
A-38-004	Maple Grove Bridge	Jackson
A-38-005	Gilletts Lake	Jackson
A-38-006	Trestle Bridge	Jackson

**Michigan State Boating Access Sites
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<u>Site ID</u>	<u>Site Name</u>	<u>County</u>
A-38-007	Wolf Lake	Jackson
A-38-008	Pine Hill Lake	Jackson
A-38-009	Tompkins Bridge	Jackson
A-39-001	Barton Lake	Kalamazoo
A-39-002	Sherman Lake	Kalamazoo
A-39-003	Long Lake	Kalamazoo
A-39-005	Morrow Pond	Kalamazoo
A-39-006	Eagle Lake	Kalamazoo
A-39-007	Le Fever Lake	Kalamazoo
A-39-008	Paw Paw Lake	Kalamazoo
A-39-009	Rupert Lake	Kalamazoo
A-39-010	Crooked Lake	Kalamazoo
A-39-011	Sugar Loaf Lake	Kalamazoo
A-39-012	Comstock	Kalamazoo
A-39-014	Austin Lake	Kalamazoo
A-39-017	Whitford - Lawler	Kalamazoo
A-39-018	Eagle Lake	Kalamazoo
A-39-019	Kalamazoo River	Kalamazoo
A-40-001	East Lake	Kalkaska
A-40-002	Big Blue Lake	Kalkaska
A-40-004	Rapid River North	Kalkaska
A-40-005	Starvation Lake	Kalkaska
A-40-006	Bear Lake	Kalkaska
A-40-007	Freedom Park	Kalkaska
A-40-008	Crawford Lake	Kalkaska
A-40-009	Torch River	Kalkaska
A-40-010	Cub Lake	Kalkaska
A-40-011	Indian Lake	Kalkaska
A-40-012	Rapid River West	Kalkaska
A-40-013	Maple Creek	Kalkaska
A-40-015	Bass Lake	Kalkaska
A-40-016	Big Twin Lake	Kalkaska
A-40-017	Kettle Lake	Kalkaska
A-40-018	Rainbow Jim Bridge	Kalkaska
A-40-021	Three Mile Bend	Kalkaska

Michigan State Boating Access Sites
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<u>Site ID</u>	<u>Site Name</u>	<u>County</u>
A-40-022	Manistee River	Kalkaska
A-40-023	Rapid River South	Kalkaska
A-40-025	Sand Banks	Kalkaska
A-40-026	Cranberry Lake	Kalkaska
A-40-027	Manistee River - Hanson	Kalkaska
A-41-001	Murray Lake	Kent
A-41-002	Campau Lake	Kent
A-41-003	Bass Lake	Kent
A-41-004	Camp Lake	Kent
A-41-005	Big Pine Island Lake	Kent
A-41-006	Campbell Lake	Kent
A-41-007	Ada	Kent
A-41-008	Lincoln Lake	Kent
A-41-009	Lime Lake	Kent
A-41-011	Rogue River	Kent
A-41-014	Rogue River Mouth	Kent
A-41-015	Pratt Lake	Kent
A-41-016	Knapp Street Bridge	Kent
A-41-019	Lowell	Kent
A-41-101	Friske Dr.	Kent
A-41-102	Summit Avenue	Kent
A-42-001	Lake Medora	Keweenaw
A-42-002	Gratiot Lake	Keweenaw
A-42-003	Lake Bailey	Keweenaw
A-42-004	Eliza Lake	Keweenaw
A-42-005	Thayers Lake	Keweenaw
A-42-006	Garden City Pond	Keweenaw
A-42-007	Lac La Belle Dock	Keweenaw
A-42-008	Fort Wilkins State Park	Keweenaw
A-42-009	Copper Harbor	Keweenaw
A-42-010	Eagle Harbor	Keweenaw
A-42-011	Tamarack Waterworks	Keweenaw
A-43-001	Wagon Wheel	Lake
A-43-002	Sulak	Lake
A-43-003	Roller Bridge	Lake

**Michigan State Boating Access Sites
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<u>Site ID</u>	<u>Site Name</u>	<u>County</u>
A-43-005	Fox Bridge	Lake
A-43-009	Edgetts Bridge	Lake
A-43-015	Weavers	Lake
A-43-017	Idlewild Lake	Lake
A-43-018	Little Idlewild Lake	Lake
A-43-019	Foreman Lakes	Lake
A-43-020	Blood Creek	Lake
A-43-021	Middle Branch Pere Marquette	Lake
A-43-022	Big Star Lake	Lake
A-43-023	PM River Undeveloped	Lake
A-43-024	North Lake	Lake
A-43-025	Skookum - South Bank	Lake
A-43-026	Mench Lake	Lake
A-43-027	Wolf Lake	Lake
A-43-028	Rockey	Lake
A-43-029	Harper Lake	Lake
A-43-030	Switzer Lake	Lake
A-43-032	M-37 Bridge	Lake
A-43-033	The Forks	Lake
A-43-034	Indian Bridge	Lake
A-43-035	Spencer Bridge	Lake
A-43-036	Reed Lake	Lake
A-43-037	Paradise Lake	Lake
A-43-039	Baldwin Hatchery	Lake
A-43-045	Skookum - North Bank	Lake
A-43-046	Big Bass Lake	Lake
A-44-001	Nepessing Lake	Lapeer
A-44-002	Minnewanna Lake	Lapeer
A-44-003	Big Fish Lake	Lapeer
A-44-004	Davidson Lake	Lapeer
A-44-008	Watts Lake	Lapeer
A-45-001	Lake Leelanau - West	Leelanau
A-45-002	Lake Leelanau - East	Leelanau
A-45-003	Cook Lake	Leelanau
A-45-004	Cedar Lake	Leelanau

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<u>Site ID</u>	<u>Site Name</u>	<u>County</u>
A-45-007	Glen Lake	Leelanau
A-45-008	Lime Lake	Leelanau
A-45-009	Carp River	Leelanau
A-45-010	Armstrong Lake	Leelanau
A-45-012	West Arm	Leelanau
A-45-013	The Narrows	Leelanau
A-46-001	Sand Lake	Lenawee
A-46-002	Allens Lake	Lenawee
A-46-003	Devils Lake	Lenawee
A-46-004	Wamplers Lake	Lenawee
A-46-005	Round Lake	Lenawee
A-46-008	Lake Hudson	Lenawee
A-47-001	Lake Chemung	Livingston
A-47-002	East Crooked Lake	Livingston
A-47-003	Woodland Lake	Livingston
A-47-004	Whitmore Lake	Livingston
A-47-007	Bishop Lake Campground	Livingston
A-47-008	Appleton Lake	Livingston
A-47-009	Chenango Lake	Livingston
A-47-010	Chilson Pond	Livingston
A-47-011	Hiland Lake	Livingston
A-47-012	Gosling Lake	Livingston
A-47-013	Murray Lake	Livingston
A-47-014	Reed Lake	Livingston
A-47-015	Island Lake R.A.	Livingston
A-47-016	Trout Lake	Livingston
A-48-001	Manistique Lake - Northside	Luce
A-48-002	Peanut Lake	Luce
A-48-003	Silver Creek Trout Pond	Luce
A-48-004	Kak's Lake	Luce
A-48-005	McPhee's Landing	Luce
A-48-006	Natalie	Luce
A-48-007	County Line	Luce
A-48-009	Twin Lake	Luce
A-48-014	East Lake	Luce

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<u>Site ID</u>	<u>Site Name</u>	<u>County</u>
A-48-024	Muskallonge Lake S.P.	Luce
A-48-025	Third Creek Trout Pond	Luce
A-48-026	Brockies Trout Pond	Luce
A-48-027	Bucky's Trout Pond	Luce
A-48-028	Spring Creek Trout Pond	Luce
A-48-031	Little Lake Harbor	Luce
A-48-032	Dollarville Dam	Luce
A-48-033	Dollarville Dam	Luce
A-49-002	Curtis	Mackinac
A-49-003	Naubinway	Mackinac
A-49-004	Portage Creek	Mackinac
A-49-005	Dunkles Landing	Mackinac
A-49-006	Wolfe Bay	Mackinac
A-49-007	Millecoquins Lake	Mackinac
A-49-008	Cooks Bay	Mackinac
A-49-009	McAlpine Pond	Mackinac
A-49-010	Upper Millecoquin River	Mackinac
A-49-017	Brevort Lake	Mackinac
A-49-018	Marquette Island	Mackinac
A-49-023	Epoufette Bay	Mackinac
A-49-027	Pine River Mouth	Mackinac
A-50-001	Harley Ensign Memorial	Macomb
A-50-003	Selfridge	Macomb
A-50-006	Clinton River Cut-Off	Macomb
A-51-003	Bear Lake	Manistee
A-51-004	Nine Mile Bridge	Manistee
A-51-005	State Road	Manistee
A-51-006	Portage Lake	Manistee
A-51-008	Jopp Bridge	Manistee
A-51-010	Bar Lake	Manistee
A-51-013	Cranberry Lake	Manistee
A-51-015	Canfield Lake	Manistee
A-51-017	Kurick Road	Manistee
A-51-018	County Line Bridge	Manistee
A-51-019	Glovers Lake	Manistee

Michigan State Boating Access Sites
(Developed Sites Only)

<u>Site ID</u>	<u>Site Name</u>	<u>County</u>
A-51-021	Potter Bridge	Manistee
A-51-022	Tippy Dam Campground	Manistee
A-51-023	Stronach	Manistee
A-51-025	Tippy Dam	Manistee
A-51-026	East Lake Village Park	Manistee
A-51-101	Little Manistee River	Manistee
A-52-001	Big Shag Lake	Marquette
A-52-002	Big Trout Lake	Marquette
A-52-003	Swanzy Lake	Marquette
A-52-009	Bass Lake	Marquette
A-52-011	Lake Michigamme	Marquette
A-52-012	Engman's Lake	Marquette
A-52-014	Cranberry Lake	Marquette
A-52-015	East Branch Escanaba River	Marquette
A-52-016	Lily Lake	Marquette
A-52-017	Branch Escanaba River	Marquette
A-52-018	Middle Branch Escanaba River	Marquette
A-52-019	Island Lake	Marquette
A-52-020	Wolf Lake	Marquette
A-52-021	Mangum	Marquette
A-52-022	Lake of the Plains	Marquette
A-52-023	Deer Creek	Marquette
A-52-024	Sporley Lake	Marquette
A-52-025	Michigamme River	Marquette
A-52-026	Chocolay River	Marquette
A-52-027	Johnson Lake	Marquette
A-52-028	Chocolay River - Nelson Creek	Marquette
A-52-029	Grant Lake	Marquette
A-52-030	Goose Lake	Marquette
A-52-031	Lake Angeline	Marquette
A-52-032	Twin Lake	Marquette
A-52-033	Arfelin Lake	Marquette
A-52-034	Granite Lake	Marquette
A-52-035	Chocolay River - Le Vasseur Creek	Marquette
A-52-036	Trout Falls Creek	Marquette

Michigan State Boating Access Sites
(Developed Sites Only)

<u>Site ID</u>	<u>Site Name</u>	<u>County</u>
A-52-037	Witch Lake	Marquette
A-52-038	Little Shag Lake	Marquette
A-52-039	Helen Lake	Marquette
A-52-041	Dead River Basin - North	Marquette
A-52-042	Hoist Basin	Marquette
A-52-043	Sawmill Creek	Marquette
A-52-044	Goose Lake	Marquette
A-52-046	Forestville	Marquette
A-52-047	McClure Storage Basin	Marquette
A-52-048	Schweitzer Creek Flowage	Marquette
A-52-049	Boston Lake	Marquette
A-52-051	Perch Lake	Marquette
A-52-055	Van Riper State Park	Marquette
A-52-059	Michigamme Dam	Marquette
A-52-060	Teal Lake	Marquette
A-52-061	Greenwood Reservoir	Marquette
A-52-066	M-28 Bridge	Marquette
A-53-001	Gun Lake	Mason
A-53-002	Upper	Mason
A-53-004	Ford Lake	Mason
A-53-005	Walhalla Road Bridge	Mason
A-53-006	Pere Marquette	Mason
A-53-007	Black River	Mason
A-53-008	Pere Marquette River - West	Mason
A-53-012	Hackert Lake	Mason
A-53-013	Tallman Lake	Mason
A-53-014	Landon Bridge	Mason
A-53-015	Pliness Lake	Mason
A-53-016	St. Mary's Lake	Mason
A-53-017	US 31	Mason
A-53-018	Ludington State Park	Mason
A-53-020	Pere Marquette - Custer	Mason
A-53-021	Pere Marquette - Fork	Mason
A-53-022	Pere Marquette - section line	Mason
A-53-023	Pere Marquette - USFS 5167	Mason

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<u>Site ID</u>	<u>Site Name</u>	<u>County</u>
A-54-001	Lake Mecosta	Mecosta
A-54-002	Rogers Pond	Mecosta
A-54-003	Chippewa Lake	Mecosta
A-54-005	Pretty Lake	Mecosta
A-54-006	Townline Lake	Mecosta
A-54-007	Clear Lake	Mecosta
A-54-008	Hillview Lake	Mecosta
A-54-009	Brockway Lake	Mecosta
A-54-010	River Bend Bluffs	Mecosta
A-54-011	Jehnsen Lake	Mecosta
A-54-012	Former Rustord Pond	Mecosta
A-54-013	Muskegon River	Mecosta
A-54-014	Lower Evans Lake	Mecosta
A-54-015	Big Evans Lake	Mecosta
A-54-016	Upper Evans Lake	Mecosta
A-54-017	Winchester Dam	Mecosta
A-54-018	Burgess Lake	Mecosta
A-54-019	Altona - Little Muskegon River	Mecosta
A-54-025	131 Bridge	Mecosta
A-55-001	Cedar River Mouth	Menominee
A-55-002	Koss Landing	Menominee
A-55-003	Faithorn	Menominee
A-55-004	Lake Ann	Menominee
A-55-005	Lake Mary	Menominee
A-55-006	Linnbeck Lake	Menominee
A-55-007	Sturgeon Landing	Menominee
A-55-008	Railroad Dock	Menominee
A-55-012	Gerald Welling Memorial	Menominee
A-56-001	Big Salt River	Midland
A-56-002	Sanford Lake	Midland
A-57-001	Lucas Road	Missaukee
A-57-002	Dyer Lake	Missaukee
A-57-003	Lake Sapphire	Missaukee
A-57-004	Clam River	Missaukee
A-58-001	Hoffman Memorial	Monroe

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<u>Site ID</u>	<u>Site Name</u>	<u>County</u>
A-58-004	Otter Creek Mouth	Monroe
A-58-006	Halfway Creek	Monroe
A-58-007	Dixie Highway	Monroe
A-58-008	Sterling State Park	Monroe
A-58-009	Swan Creek	Monroe
A-58-010	Bolles Harbor	Monroe
A-59-001	Lake Montcalm	Montcalm
A-59-003	Horseshoe Lake	Montcalm
A-59-004	Nevins Lake	Montcalm
A-59-005	Dickerson Lake	Montcalm
A-59-006	Clifford Lake	Montcalm
A-59-007	Derby Lake	Montcalm
A-59-008	Swan Lake (Mud)	Montcalm
A-59-009	Little Whitefish Lake	Montcalm
A-59-010	Muskellunge Lake	Montcalm
A-59-011	Half Moon Lake	Montcalm
A-59-012	Tamarack Lake	Montcalm
A-59-013	Rainbow Lake	Montcalm
A-59-014	Cowden Lake	Montcalm
A-59-015	Loon Lake	Montcalm
A-59-016	Hemmingway Lake	Montcalm
A-59-017	Crystal Lake-North	Montcalm
A-59-030	Duck Lake	Montcalm
A-59-031	Fifth Lake	Montcalm
A-60-001	Rush Lake Flooding	Montmorency
A-60-002	Rush Lake Dam	Montmorency
A-60-003	McCormick Lake	Montmorency
A-60-004	Grass Lake	Montmorency
A-60-008	Crooked Creek Pond	Montmorency
A-60-009	East Twin Lake	Montmorency
A-60-010	Avalon Lake	Montmorency
A-60-012	Bourne Lake	Montmorency
A-60-013	Gaylanta Lake	Montmorency
A-60-014	Sage Lake Flooding	Montmorency
A-60-015	Long Lake	Montmorency

Michigan State Boating Access Sites
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<u>Site ID</u>	<u>Site Name</u>	<u>County</u>
A-60-016	De Cheau Lake	Montmorency
A-60-017	Crooked Lake	Montmorency
A-60-018	Clear Lake State Park	Montmorency
A-60-022	Clear Lake State Park	Montmorency
A-61-003	Muskegon State Park	Muskegon
A-61-004	Snug Harbor Muskegon State Park	Muskegon
A-61-005	White Lake Channel	Muskegon
A-61-009	Duck Lake State Park	Muskegon
A-62-001	Brooks Lake	Newaygo
A-62-002	Diamond Lake	Newaygo
A-62-003	Pickarel Lake	Newaygo
A-62-004	Newaygo	Newaygo
A-62-005	Hess Lake	Newaygo
A-62-006	Ransom Lake	Newaygo
A-62-007	Bills Lake	Newaygo
A-62-008	Bitely Lake	Newaygo
A-62-009	Woodland Lake	Newaygo
A-62-010	Englewright Lake	Newaygo
A-62-012	Robinson Lake	Newaygo
A-62-013	High Rollway - Thornapple	Newaygo
A-62-014	Anderson's Flats	Newaygo
A-62-015	Pine Street	Newaygo
A-62-016	Marl Pit Creek	Newaygo
A-62-017	Maple Island	Newaygo
A-62-018	Henning Park	Newaygo
A-62-020	Newaygo State Park	Newaygo
A-62-021	Steamboat Landing	Newaygo
A-62-022	Sand Lake	Newaygo
A-63-001	Orchard Lake	Oakland
A-63-002	Union Lake	Oakland
A-63-003	Lake Oakland	Oakland
A-63-004	Tackles Drive	Oakland
A-63-005	Wolverine Lake	Oakland
A-63-006	White Lake	Oakland
A-63-007	Lake Orion	Oakland

Michigan State Boating Access Sites
(Developed Sites Only)

<u>Site ID</u>	<u>Site Name</u>	<u>County</u>
A-63-008	Big Lake	Oakland
A-63-009	Long Lake	Oakland
A-63-010	Davisburg Trout Pond	Oakland
A-63-011	Crescent Lake	Oakland
A-63-012	Loon Lake	Oakland
A-63-013	Squaw Lake	Oakland
A-63-014	Lakeville Lake	Oakland
A-63-015	Shoe Lake	Oakland
A-63-016	Maceday Lake	Oakland
A-63-017	Cedar Island Lake	Oakland
A-63-018	Tipsico Lake	Oakland
A-63-019	Fenton Trout Pond	Oakland
A-63-020	Dodge Bros. State Park #4	Oakland
A-63-021	Pontiac Lake	Oakland
A-63-022	Alderman Lake	Oakland
A-63-023	Moore Lake	Oakland
A-63-024	Lower Pettibone Lake	Oakland
A-63-025	Teeple Lake	Oakland
A-63-027	Proud Lake	Oakland
A-63-028	Heron Lake	Oakland
A-63-029	Crotched Lake	Oakland
A-63-030	Crystal Lake	Oakland
A-63-031	Holdredge Lake	Oakland
A-63-032	Wildwood-Valley Lakes	Oakland
A-63-033	Graham Lakes - South	Oakland
A-63-034	Trout Lake	Oakland
A-63-035	Big Seven Lake	Oakland
A-63-036	Dickinson Lake	Oakland
A-63-037	Upper Straits Lake	Oakland
A-63-038	Chamberlain Lake	Oakland
A-63-039	Prince Lake	Oakland
A-63-040	Hart Lake	Oakland
A-64-001	Crystal Lake	Oceana
A-64-002	McLaren Lake	Oceana
A-64-005	North Branch	Oceana

**Michigan State Boating Access Sites
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<u>Site ID</u>	<u>Site Name</u>	<u>County</u>
A-64-007	Twin Bridge	Oceana
A-64-008	Silver Lake State Park	Oceana
A-65-001	Rifle River - South	Ogemaw
A-65-002	Rifle River - North	Ogemaw
A-65-003	Clear Lake	Ogemaw
A-65-004	Klacking Creek	Ogemaw
A-65-005	Hardwood Lake	Ogemaw
A-65-006	Bougner Lake	Ogemaw
A-65-007	Sage Lake	Ogemaw
A-65-008	Horseshoe Lake	Ogemaw
A-65-009	George Lake	Ogemaw
A-65-010	Big & Little Williams	Ogemaw
A-65-012	Bass Lake	Ogemaw
A-65-013	Bush Lake	Ogemaw
A-65-014	Tee Lake	Ogemaw
A-65-015	Vaughn Creek	Ogemaw
A-65-016	Lake George	Ogemaw
A-65-017	Peach Lake	Ogemaw
A-65-018	Au Sable Lake	Ogemaw
A-65-019	Kenneth Road	Ogemaw
A-65-020	Rifle Lake	Ogemaw
A-65-021	Little Long Lake	Ogemaw
A-65-023	Grousehaven Lake	Ogemaw
A-65-024	Devoe Lake	Ogemaw
A-65-025	Grebe Lake	Ogemaw
A-65-026	Lodge Lake	Ogemaw
A-65-027	The Ranch	Ogemaw
A-65-028	Henderson Lake	Ogemaw
A-66-001	Bergland Dock	Ontonagon
A-66-002	County Line Lake	Ontonagon
A-66-003	Ewen	Ontonagon
A-66-005	Lake Gogebic	Ontonagon
A-66-006	Porcupine Mountains S.P.	Ontonagon
A-66-007	Misery River Mouth	Ontonagon
A-67-001	North Branch Pine River	Osceola

Michigan State Boating Access Sites
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<u>Site ID</u>	<u>Site Name</u>	<u>County</u>
A-67-003	Hicks Lake	Osceola
A-67-004	East Branch Pine River	Osceola
A-67-005	Graver Road	Osceola
A-67-006	McCoy Lake	Osceola
A-67-007	Whetstone Creek	Osceola
A-67-009	Wells Lake	Osceola
A-67-010	Middle Branch River	Osceola
A-67-011	Big Lake	Osceola
A-67-012	Todd Lake	Osceola
A-67-013	Pine River	Osceola
A-67-014	Diamond Lake	Osceola
A-67-015	Muskegon River	Osceola
A-67-016	Marion Pond	Osceola
A-67-018	Muskegon River M 115	Osceola
A-67-020	Crawford Park	Osceola
A-68-001	Tea Lake	Oscoda
A-68-002	Big Creek	Oscoda
A-68-005	Whirlpool	Oscoda
A-68-006	Camp Ten Bridge	Oscoda
A-68-008	Comins Flats	Oscoda
A-68-010	M33 Roadside Park	Oscoda
A-69-001	Dixon Lake	Otsego
A-69-002	Sturgeon River	Otsego
A-69-003	Big Lake	Otsego
A-69-005	Bradford Lake	Otsego
A-69-006	Lake Manuka	Otsego
A-69-007	Heart Lake	Otsego
A-69-008	Opal Lake	Otsego
A-69-010	Big Bass Lake	Otsego
A-69-011	Pigeon River	Otsego
A-69-012	Lake Twenty-Seven	Otsego
A-69-013	Emerald Lake	Otsego
A-69-014	West Twin Lake	Otsego
A-69-015	Five Lakes - South	Otsego
A-69-022	Otsego Lake State Park	Otsego

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<u>Site ID</u>	<u>Site Name</u>	<u>County</u>
A-70-001	Lake Macatawa	Ottawa
A-70-002	Petty's Bayou	Ottawa
A-70-003	Lloyd's Bayou	Ottawa
A-70-004	Robinson	Ottawa
A-70-005	Holland State Park	Ottawa
A-70-006	Bruce's Bayou - West	Ottawa
A-70-008	Indian Channel	Ottawa
A-70-011	Pigeon Lake	Ottawa
A-70-012	Bruce's Bayou - East	Ottawa
A-70-101	Grand Haven Breakwater	Ottawa
A-71-001	Lost Lake	Presque Isle
A-71-002	Long Lake	Presque Isle
A-71-003	Lake Emma	Presque Isle
A-71-004	Lake Nettie	Presque Isle
A-71-005	Quinn Creek	Presque Isle
A-71-006	US-23	Presque Isle
A-71-008	Hammond Point	Presque Isle
A-71-009	Lake Augusta	Presque Isle
A-71-010	Townhall	Presque Isle
A-71-011	Lake Ferdelman	Presque Isle
A-71-012	Bear Den Lake	Presque Isle
A-71-013	Lake May	Presque Isle
A-71-016	Onaway State Park	Presque Isle
A-71-018	Hammond Bay	Presque Isle
A-71-019	Presque Isle	Presque Isle
A-71-020	Lake Esau	Presque Isle
A-71-101	Ocqueoc River Mouth	Presque Isle
A-72-001	Houghton Lake	Roscommon
A-72-002	Lake St. Helen	Roscommon
A-72-003	Houghton Lake West	Roscommon
A-72-004	Houghton Lake East	Roscommon
A-72-005	Higgins Lake	Roscommon
A-72-006	Marl Lake	Roscommon
A-72-012	South Higgins Lake S. P.	Roscommon
A-72-014	Lake St. Helen	Roscommon

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<u>Site ID</u>	<u>Site Name</u>	<u>County</u>
A-73-004	Flint River	Saginaw
A-73-006	M-13 Bridge	Saginaw
A-74-001	North Channel	Saint Clair
A-74-002	Fair Haven	Saint Clair
A-74-003	Deckers Landing	Saint Clair
A-74-004	Belle River	Saint Clair
A-74-006	Algonac State Park	Saint Clair
A-74-011	Ames	Saint Clair
A-74-012	Snooks	Saint Clair
A-74-018	Marine City	Saint Clair
A-75-001	Pleasant Lake	Saint Joseph
A-75-002	Klinger Lake	Saint Joseph
A-75-003	Fisher's Lake	Saint Joseph
A-75-004	Clear Lake	Saint Joseph
A-75-005	Stump Bay	Saint Joseph
A-75-006	Fish Lake	Saint Joseph
A-75-007	Thompson Lake	Saint Joseph
A-75-008	Palmer Lake	Saint Joseph
A-75-009	Mud Lake	Saint Joseph
A-75-010	Long Lake	Saint Joseph
A-75-011	Noah Lake	Saint Joseph
A-75-012	Lee Lake	Saint Joseph
A-75-013	Sturgeon Lake	Saint Joseph
A-75-014	Mendon	Saint Joseph
A-75-015	Omena Lake	Saint Joseph
A-75-016	Prairie River Lake	Saint Joseph
A-75-017	Portage Lake	Saint Joseph
A-76-004	Lexington Harbor	Sanilac
A-76-006	Port Sanilac	Sanilac
A-77-002	Wagner Dam	Schoolcraft
A-77-003	Kennedy Lake	Schoolcraft
A-77-005	Ten Curves	Schoolcraft
A-77-006	Dodge Lake	Schoolcraft
A-77-007	Dutch Fred Lake	Schoolcraft
A-77-009	McDonald Lake	Schoolcraft

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<u>Site ID</u>	<u>Site Name</u>	<u>County</u>
A-77-010	Snyder Lake	Schoolcraft
A-77-011	Ashford Lake	Schoolcraft
A-77-012	Clear Creek Pond	Schoolcraft
A-77-013	Thompson Creek	Schoolcraft
A-77-017	Seul Choix Pte	Schoolcraft
A-77-025	Indian Lake State Park	Schoolcraft
A-77-027	Germfask	Schoolcraft
A-77-028	Palms Book State Park	Schoolcraft
A-77-029	Indian Lake State Park	Schoolcraft
A-79-002	Quanicassee River	Tuscola
A-80-001	Clear Lake	Van Buren
A-80-002	Round Lake	Van Buren
A-80-003	Gravel Lake	Van Buren
A-80-004	Saddle Lake	Van Buren
A-80-005	Cedar Lake	Van Buren
A-80-006	Brandywine Lake	Van Buren
A-80-007	Van Auken Lake	Van Buren
A-80-008	Three Mile Lake	Van Buren
A-80-009	Huzzy Lake	Van Buren
A-80-010	Lake Cora	Van Buren
A-80-011	Wolf Lake	Van Buren
A-80-012	Lake Eleven	Van Buren
A-80-013	Fish Lake	Van Buren
A-80-014	Scott Lake	Van Buren
A-80-015	Rush Lake	Van Buren
A-80-016	Hall Lake	Van Buren
A-80-017	Lake of The Woods	Van Buren
A-80-018	Shafer Lake	Van Buren
A-80-019	Black River	Van Buren
A-80-020	Eagle Lake	Van Buren
A-80-021	Reynolds Lake	Van Buren
A-80-022	School Section Lake	Van Buren
A-80-023	Lake Fourteen	Van Buren
A-80-024	Three-Legged Lake	Van Buren
A-80-025	Jeptha Lake	Van Buren

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<u>Site ID</u>	<u>Site Name</u>	<u>County</u>
A-80-026	Bankson Lake	Van Buren
A-81-001	Bruin Lake	Washtenaw
A-81-002	Half-Moon Lake	Washtenaw
A-81-003	Sugarloaf Lake	Washtenaw
A-81-005	Joslin Lake	Washtenaw
A-81-006	North Lake	Washtenaw
A-81-007	Walsh Lake	Washtenaw
A-81-009	South Lake	Washtenaw
A-81-010	Crooked Lake	Washtenaw
A-81-011	Winnewanna Impoundment	Washtenaw
A-81-012	Pickereel Lake	Washtenaw
A-81-014	Mill Lake	Washtenaw
A-81-015	Cedar Lake	Washtenaw
A-81-016	Green Lake	Washtenaw
A-81-017	Doyle Lake	Washtenaw
A-81-020	Portage Lake	Washtenaw
A-81-021	Mud Lake	Washtenaw
A-81-022	Sullivan Lake	Washtenaw
A-81-023	Crooked Lake	Washtenaw
A-82-003	Belleville Lake - East	Wayne
A-82-009	Belleville Lake - West	Wayne
A-83-001	Mitchell West	Wexford
A-83-002	Berry Lake	Wexford
A-83-003	Harvey Bridge	Wexford
A-83-004	Baxter Bridge	Wexford
A-83-006	Fletcher Creek	Wexford
A-83-009	W. M. Mitchell State Park	Wexford
A-83-014	W. M. Mitchell State Park	Wexford
A-83-015	Pleasant Lake	Wexford